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Nurmijärvi Geophysical Observatory
Magnetic Results 2004

EDITORS K. PAJUNPÄÄ AND H. NEVANLINNA


**NURMIJÄRVI GEOPHYSICAL
OBSERVATORY**

MAGNETIC RESULTS 2004

Editors K. Pajunpää and H. Nevanlinna

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<p>Abstract</p> <p>The magnetic yearbook of the magnetic recordings at the Nurmijärvi observatory contains tables, figures of hourly, monthly, and yearly means of the magnetic field components X, Y and Z as well as magnetic activity indices (K, Ak) in 2004. Magnetic isolines describing the distribution of geomagnetic field components in Finland 2005.0 are shown by a series of maps.</p>		
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1 Description of the observatory

The Nurmijärvi Geophysical Observatory of the Finnish Meteorological Institute (FMI) started recording the Earth's magnetic field in April 1952. The first yearbook was for 1953. The observatory is a part of Space Research Division (AVA).

The observatory lies in a pine forest on a moraine ridge by a lake shore, about 40 kilometers NNW of Helsinki. There are no artificial disturbance sources nearby.

Coordinates:

	Lat.	Lon.
Geographical	60°30.5'N	24°39.3'E
Geomagnetic	57°43.8'	113°28.8'
Corr.geomagnetic	56°49.2'	102°31.2'

The magnetic coordinates are referred to the IGRF-95 model.

L-value 3.3
Height 105m

The Nurmijärvi observatory is running two digital magnetometers, which are controlled once per week with absolute measurements. An other magnetic recording instruments at the observatory is the three-component pulsation magnetometer of the Sodankylä Geophysical Observatory. The Air quality department of FMI makes continuous airborne radioactivity recording. Hydrological and meteorological observations are part of the daily routine. The Helsinki University operates the seismic station.

The observatory has a magnetic calibration and test laboratory consisting of the magnetometer calibration system and the magnetic cleanliness measuring system. The calibrations are performed with three component coils and a computer controlled measuring system. Angles between sensors are measured with accuracy better than one minute of arc and the transformation factors with 0.03% accuracy. The facility includes a temperature test system for the magnetometer sensors with good temperature control and a non-tilting pillar. The magnetic cleanliness measuring system is used for testing satellite instruments and materials. Objects are measured on a rotating table inside the big calibration coils, which can reduce the Earth's field down to zero. Common software is used both for magnetic calibrations and cleanliness measurements. The demagnetizing system operates at $3Hz$ and can generate alternating fields from $5mT$ down to $30nT$.

2 Recording instruments

In the variation room the Danish suspended flux gate magnetometer (FGE) is the primary instrument. The Ukrainian LEMI-004 flux gate magnetometer is the second variometer. The sensors are directed in geographic north and east directions measuring the X, Y and Z components. The temperature in the variometer room is kept constant at $18^{\circ}C$. Analog voltages from the magnetometers are AD-converted in the variation room and the digital data are transferred through optical wires to the computers in the main observatory building. The Linux based software stores the data in three files as one-second, ten-seconds and one-minute averages. Timing is based on GPS time sheared through the local network. The standard one-minute values are averages over one minute periods starting and ending at a half minute

(e.g. 59:30 - 00:30, 00:30 - 01:30, 01:30 - 02:30). The given time is the starting minute at the centre of the period (00, 01, 02 etc.).

3 Absolute measurements

The total field (F) was measured by a Polish PMP-7 proton precession magnetometer and declination and inclination with a DI-flux-magnetometer, which consists of a flux-gate element mounted on the telescope of a non-magnetic Zeiss-Jena theodolite (010B). The absolute measurements were done on average once a week. The base line values as determined for the FGE are shown in Fig. 2.

4 Data processing and dissemination

In the processing the final base line values and sensitivities were used and hourly mean values were calculated. The measured base line values were followed closer than half a nanoTesla. All the digital data were visually inspected on the computer screen.

Tables showing the three-hour K-indices were computed from 10 s data using the 'FMI' algorithm. The upper limit for K=9 is $750nT$.

Daily magnetograms and K-indices were published in the monthly bulletin together with the Sodankylä Geophysical Observatory of the University of Oulu. The bulletin contains daily magnetograms of Nurmijärvi, Hankasalmi, Oulujärvi and Sodankylä, daily ionosond and riometer recordings and cosmic ray data.

Daily files of minute data were sent by e-mail for the INTERMAGNET system. INTERMAGNET CD-ROM 2002 was published in 2004 containing minute data, annual means and base line values from Nurmijärvi together with data from 88 other magnetic observatories.

5 IMAGE stations

The IMAGE magnetometer network consisted at the end of 2004 of 29 stations from Tartu in Estonia to Ny Ålesund on Svalbard. The principal investigator of this international project was Ari Viljanen at AVA. The observatory operated nine IMAGE stations in Finland (including Nurmijärvi) one in Estonia and one in northern Norway. At seven of the stations the service and absolute measurements were done in co-operation with the Sodankylä Geophysical Observatory of the Oulu University.

A new IMAGE station was established at Mekrijärvi (MEK) in eastern Finland. Mekrijärvi is a research station of Joensuu University.

The data sampling interval at the IMAGE stations was 10 seconds and the 10-s values were averages over the seconds 00-10, 10-20, 20-30 etc. The time stamp given for the 10-second period was the first second of that period.

Data from most of the stations was transmitted through ISDN modems to Nurmijärvi. TAR in Estonia and KEV and MEK in Finland had direct network connections and OUI and MAS were still operated through ordinary modems. The data of the nine stations was processed and inspected at the observatory and was sent to the AVA for IMAGE filing. Data transmission from the other IMAGE stations was also operated at the observatory.

The annual mean values are calculated for Oulujärvi ($64^{\circ}31'N$, $27^{\circ}14'E$) since 1993 (all days):

Year	X	Y	Z
1993.5	12971	1912	50591
1994.5	12953	1935	50616
1995.5	12951	1963	50642
1996.5	12937	1994	50664
1997.5	12926	2023	50701
1998.5	12912	2051	50742
1999.5	12902	2077	50780
2000.5	12892	2108	50828
2001.5	12889	2136	50867
2002.5	12886	2168	50914
2003.5	12870	2200	50961
2004.5	12878	2228	50998

6 SAMNET stations

The observatory provided 1-second data from the stations KIL, OIJ, HAN and NUR for the SAMNET magnetometer network operated by the Lancaster University in United Kingdom.

7 Personnel

Ph.D. Kari Pajunpää, head of the observatory

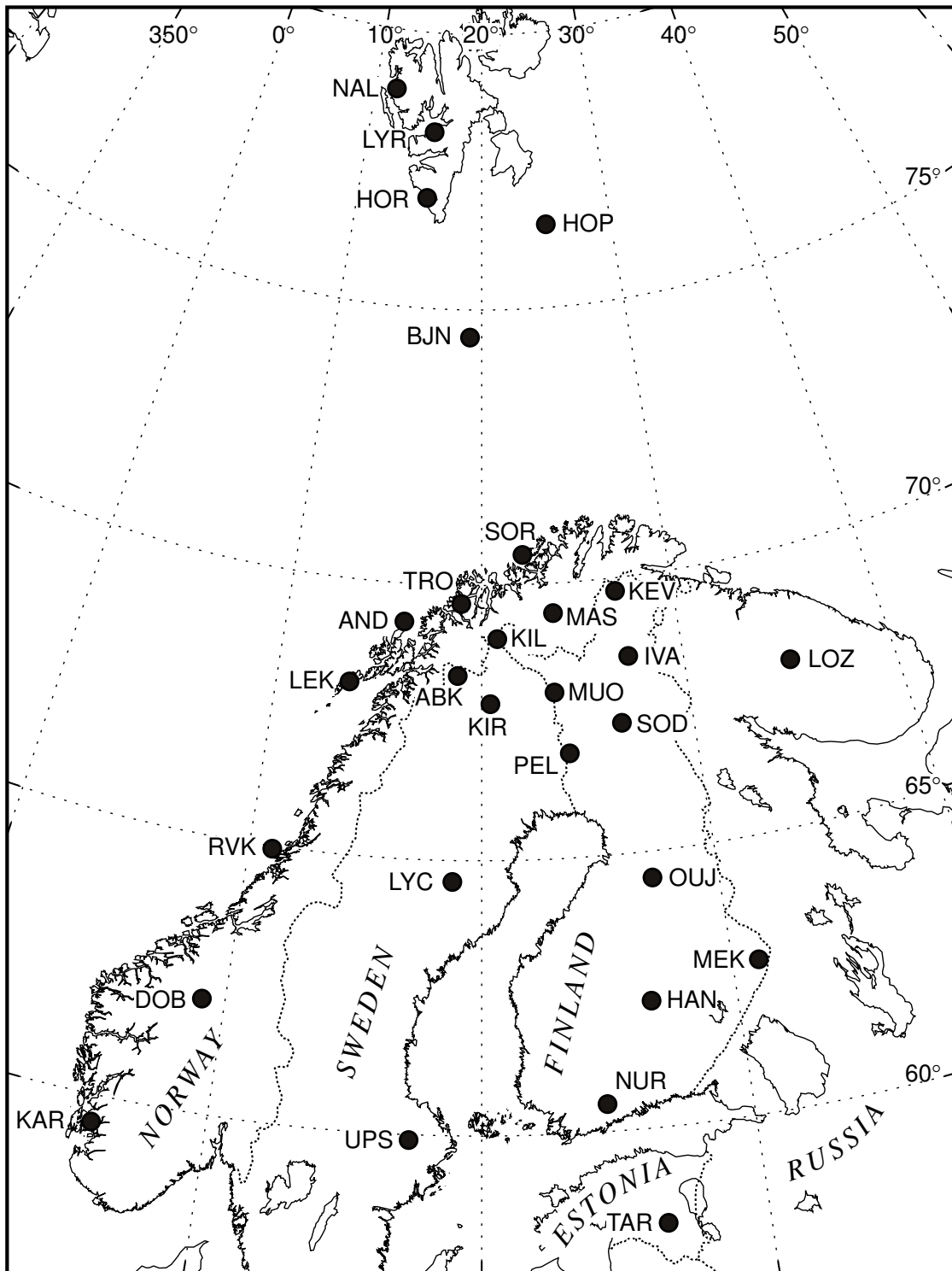
M.Sc. Anja Koistinen, assistant

Mr. Pentti Posio, technician

Ms. Tuulikki Kangas, secretary, retired for pension in Dec. 2005

8 IMAGE Magnetometer Network

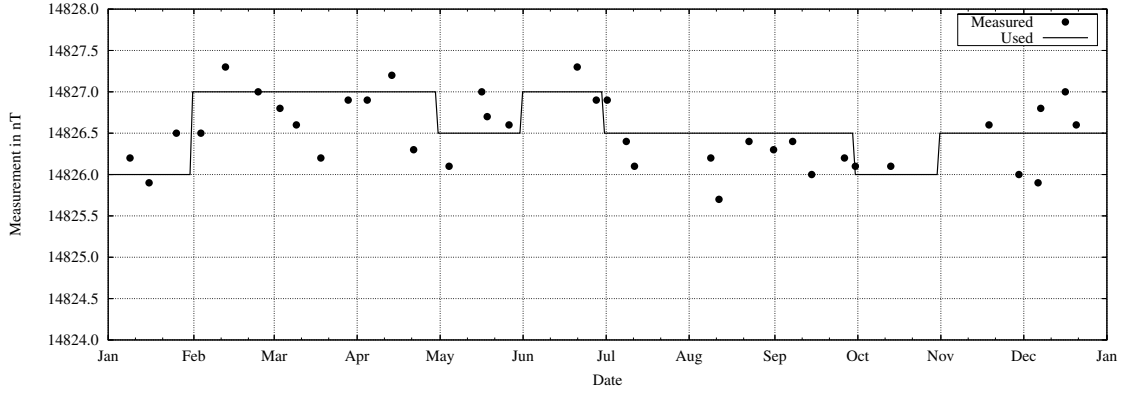
IMAGE Magnetometer Network



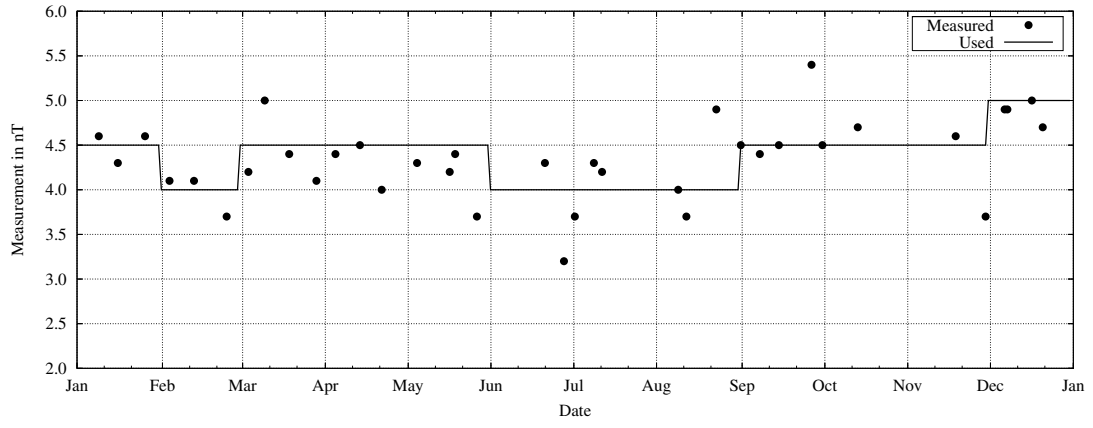
December 2004

Figure 1: Map of IMAGE magnetometer network

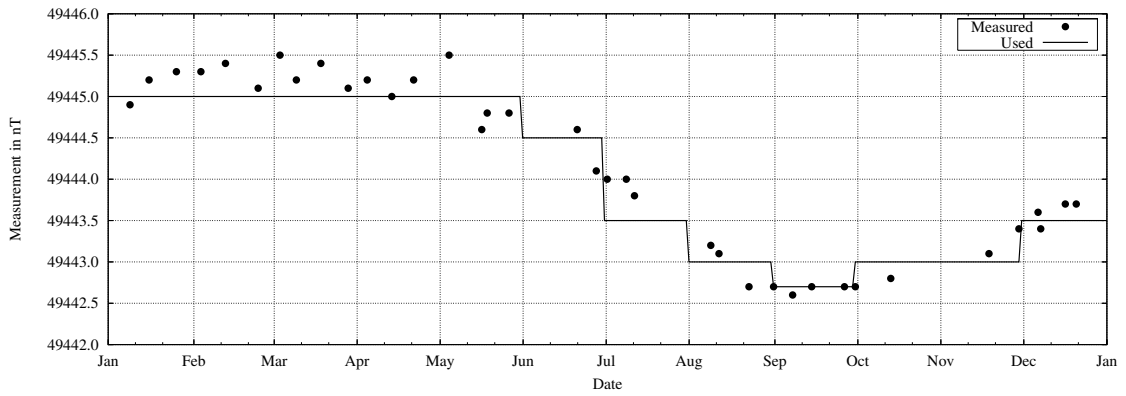
9 Baseline Measurements for FGE



(a) Baseline measurements for X component



(b) Baseline measurements for Y component



(c) Baseline measurements for Z component

Figure 2: Baseline measurements

10 Tables of Hourly Means of X, Y, and Z

Explanations of the tables:

- **X** is the North component of the magnetic vector
- **Y** is the East component of the magnetic vector
- **Z** is the vertical component of the magnetic vector
- The unit is nanotesla ($\text{nT} = 10^{-9} \text{ T}$)
- The time is universal time (UTC). The local time is $\text{UTC} + 2 \text{ h}$ (during the daylight saving time $\text{UTC} + 3 \text{ h}$)

Nurmijärvi Finland

January 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-17	-24	-5	2	-1	-10	-10	-10	-14	-17	-11	-15	-21	-42	-14	-13	-10	-30	-38	-25	-6	15	-15	-20	-15
2		-21	-11	-2	-5	-2	-3	-9	-11	-12	-16	-15	-9	-8	-21	-29	-20	-9	-20	-22	-23	-3	-4	0	-5	-12
3		-3	-6	16	11	2	4	-6	-8	-32	-36	-26	-27	-24	-19	-17	-14	-10	-14	-26	10	-19	-16	-14	-11	
4		-16	-7	-5	-7	-2	-10	2	-3	-21	-31	-31	-18	-14	-20	-18	-39	-29	-42	-36	-7	-14	-17	-20	-23	-18
5		-23	-29	-12	-10	-5	-7	-10	-12	-18	-19	-14	-15	-7	-20	-23	-17	1	-27	-23	-5	-18	-35	1	-33	-16
6		-43	-25	-19	-13	-5	-8	-11	0	-8	-17	-13	-5	-4	-7	-11	-13	-14	-16	-21	-13	-10	-31	-13	-27	-14
7	D	-23	-28	-24	-28	-13	-26	-38	-32	-52	-30	-14	-14	-23	-15	-23	-39	-30	-34	-38	-26	-27	-19	-21	-20	-26
8	Q	-18	-16	-14	-11	-10	-12	-11	-11	-10	-11	-7	-16	-12	-12	-7	-9	-11	-11	-12	-14	-6	-11	1	-6	-11
9		-24	-31	-12	-5	-5	-3	2	-31	-39	-28	-22	-9	-10	-21	-23	-1	-3	-15	12	-6	-28	-31	-29	-16	
10		-24	-26	-5	-8	-13	0	8	-11	-33	-21	-10	-5	-2	-4	-7	-14	-19	-14	-12	-15	-21	-13	-18	-13	
11		-17	-16	-15	-15	-12	-7	-3	-4	-14	-15	-20	-15	-18	-4	-30	-30	-15	-54	-27	-19	-15	-5	-18	-18	-17
12	Q	-16	-14	-12	-8	-11	-7	-10	-10	-8	-6	-5	-2	-1	-10	-9	-24	-28	-20	-13	3	-34	-24	-9	-31	-13
13		-29	-27	-21	-17	-12	-9	-10	-12	-13	-11	-8	-7	2	-17	-18	-11	1	-13	-36	-17	-15	-9	12	-18	-13
14	Q	-30	-36	-22	-21	-14	-16	-10	-5	0	4	1	-9	-18	-12	-9	-14	-17	-15	-22	-18	-22	-11	-13	-10	-14
15		-10	-12	-14	-21	-17	-14	-7	-7	-4	1	3	3	1	6	-6	-39	-18	-19	-35	-27	-20	-31	-27	-40	-15
16	D	-50	-28	-31	-25	-22	-14	-9	-3	-10	-17	-14	-31	-26	-16	-11	-9	-16	-17	-34	-39	-18	-21	-29	-24	-21
17		-27	-26	-27	-25	-17	-8	-9	-11	-15	-22	-18	-16	-21	-6	-13	-7	1	-13	-7	-20	-19	2	1	-18	-14
18		-16	-16	-17	-18	-17	-17	-2	-3	-9	-14	-14	-12	-14	-9	-3	-3	-9	-7	-7	-8	10	-20	-23	-23	-11
19		-25	-18	-16	-9	-7	-10	-9	-7	-14	-15	-21	-24	-11	-14	-32	-15	-9	-34	-37	-24	-23	12	-13	-22	-18
20		-8	-22	-18	-23	-2	4	-11	-21	-18	-20	-19	-18	-24	-28	-30	-24	-9	-31	-28	-19	-19	-16	-4	-30	-18
21		-23	-13	-15	-15	-18	-9	-5	-13	-31	-16	-19	-27	-29	-23	-7	-15	-18	-11	-5	12	-12	-13	-12	-13	-15
22	D	-16	-4	-13	-8	-20	-9	17	9	-3	2	10	-5	-7	22	9	-23	-17	-28	-45	-79	-84	-99	-123	-91	-25
23	D	-81	-51	-28	-33	-39	-40	-22	-31	-40	-32	-39	-36	-38	-23	-37	-15	60	-13	-34	-3	-59	-48	-23	-51	-31
24		-89	-85	-26	-23	-13	-9	-16	-18	-20	-30	-33	-25	-21	-11	-11	-9	-7	-13	-9	-34	-21	-28	-21	-29	-25
25	D	-58	-21	1	-76	-3	-29	-46	-44	-36	-36	-39	-48	-31	-7	-2	-14	5	-18	-20	-20	-46	-37	-65	-51	-31
26		-46	-36	-32	-28	-15	-19	-17	-18	-25	-19	-20	-23	-18	-14	-21	-19	-15	-16	-12	6	-52	-29	-21	-35	-23
27		-45	-65	-45	-31	-21	-21	-18	-15	-19	-21	-18	-17	-6	-6	-7	0	-16	-11	-19	-10	-7	-2	2	12	-17
28		-25	-7	-15	-4	2	3	-12	-6	0	-3	-8	-7	-22	-14	-6	-9	-25	-30	-19	-1	3	-18	-6	-11	-9
29	Q	-12	-7	-6	-7	-3	-4	-1	0	-2	-6	-19	-42	-32	-15	-6	-5	-5	-6	-6	-8	-13	-12	0	-9	
30		9	0	-4	0	6	10	14	8	4	1	-10	-41	-35	-27	-13	-20	-14	-13	-9	-13	-10	-1	-12	-2	-7
31	Q	-6	-7	-9	-4	2	3	4	-2	-10	-10	-13	-20	-16	-12	-9	-9	-7	-4	-11	-9	-13	-4	-2	-4	-7
All		-27	-23	-15	-15	-10	-10	-8	-11	-16	-16	-16	-18	-16	-13	-14	-17	-10	-19	-21	-16	-19	-19	-18	-23	-23
Quiet		-17	-16	-13	-10	-7	-7	-6	-5	-6	-6	-9	-18	-16	-12	-8	-12	-13	-11	-13	-9	-16	-13	-7	-10	-11
Dist.		-46	-26	-19	-34	-19	-24	-20	-20	-28	-23	-19	-27	-25	-8	-13	-20	1	-22	-34	-33	-47	-45	-52	-47	-27

January 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		248	256	241	256	254	246	246	238	239	247	233	235	233	249	240	241	246	272	312	279	276	252	264	248	252
2		248	244	225	255	249	245	249	248	245	245	243	241	241	248	266	241	239	242	278	266	283	236	253	248	249
3		243	242	235	231	239	234	235	236	238	249	259	238	233	248	235	266	247	245	251	266	337	280	256	246	249
4		242	232	243	243	238	225	232	237	245	246	243	232	232	238	274	304	244	280	265	249	254	265	266	253	249
5		242	226	215	235	220	234	247	245	248	251	239	242	239	238	294	246	298	277	266	251	259	271	252	279	251
6		254	229	256	241	241	235	239	236	237	242	242	241	245	245	241	243	253	253	274	255	250	281	318	289	252
7	D	272	262	240	223	215	195	214	227	208	229	240	255	268	255	295	263	248	301	286	276	252	258	257	256	250
8	Q	255	248	250	249	247	247	247	246	244	245	244	249	247	254	248	244	245	244	253	251	251	248	237	279	249
9		287	268	250	252	239	229	214	228	191	217	235	239	251	243	263	290	262	244	267	270	297	261	253	262	250
10		267	256	277	252	241	241	227	229	217	227	234	238	246	250	243	244	266	243	274	259	245	243	252	256	247
11		256	256	252	250	249	246	244	240	237	228	236	252	259	253	301	248	321	304	274	259	286	268	253	251	259
12	Q	248	250	248	250	247	247	246	243	241	240	239	235	238	241	241	243	244	243	261	260	278	266	259	278	249
13		268	269	247	244	254	251	247	247	247	243	239	239	238	240	246	242	264	351	302	256	260	263	283	246	258
14	Q	258	260	248	258	260	257	253	243	237	234	235	239	238	237	262	235	237	235	249	256	258	255	262	255	248
15		253	262	267	262	253	257	256	250	242	239	235	237	240	243	275	240	218	277	244	253	308	301	296	277	258
16	D	268	243	272	264	259	253	255	250	244	240	239	242	230	243	244	241	247	353	272	282	319	297	290	290	264
17		259	253	251	251	244	247	250	247	243	238	246	240	238	242	242	250	266	250	286	262	256	280	268	253	253
18		250	253	246	250	249	263	249	245	245	243	240	237	237	239	248	246	242	245	247	255	267	274	283	267	251
19		259	255	253	253	251	254	250	251	244	243	235	240	229	224	239	234	280	263	273	262	270	238	264	258	251
20		276	278	254	240	235	247	257	253	249	243	238	234	232	264	244	279	294	255	257	262	278	276	275	276	258
21		253	252	253	255	248	244	249	253	256	249	244	239	244	248	262	239	238	246	255	309	286	276	274	265	256
22	D	254	233	252	267	247	237	258	261	269	254	233	245	272	251	258	271	275	266	287	336	319	312	290	299	269
23	D	288	291	274	234	239	228	235	229	239	247	240	240	265	228	239	236	271	380	305	262	274	291	287	277	263
24		258	221	246	256	255	247	248	252	251	249	243	246	246	247	242	242	243	244	281	262	261	274	280	303	254
25	D	313	325	294	257	273	264	258	231	247	251	227	226	232	230	233	264	233	230	281	267	289	295	295	275	262
26		263	260	254	248	252	252	252	254	256	252	238	242	247	242	261	237	242	243	262	287	321	289	265	273	258
27		302	296	293	273	258	252	257	255	249	247	240	234	234	236	288	242	280	270	246	247	249	258	252	258	
28		272	288	275	268	253	235	227	236	237	242	239	234	240	245	246	245	254	278	266	283	262	268	253	266	251
29	Q	253	251	249	247	244	241	243	247	247	245	240	235	230	239	243	247	246	243	245	252	266	270	268	262	248
30		262	254	253	247	237	235	239	233	231	238	240	239	236	243	245	262	248	251	248	248	273	286	253	258	248
31	Q	250	241	237	242	246	245	243	244	242	239	239	252	245	242	244	248	246	247	251	257	255	253	254	247	
All		262	253	253	250	246	243	244	243	241	242	239	240	242	243	255	251	256	267	268	266	275	270	268	266	248
Quiet		253	250	246	249	249	247	246	245	242	241	239	242	240	243	248	243	244	243	252	255	262	259	256	266	248
Dist.		279	271	266	249	247	235	244	240	241	244	236	241	253	241	254	255	255	306	286	284	290	284	279	260	

Nurnijärvi Finland

February 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-5	-5	-5	-7	5	5	3	7	1	-2	-6	-6	-8	-5	-14	-13	-12	-5	-5	-6	-13	10	-9	-10	-4
2		-7	-5	-3	-1	2	7	8	-24	-9	-14	-27	-25	-26	-20	-23	-15	-17	-9	-20	-10	-6	23	-7	-16	-10
3		-27	-10	-2	-12	-2	-8	-23	-6	-11	-14	-13	-11	-14	-7	-17	-5	-34	-18	-10	-2	7	-5	-11	-11	-11
4		-8	-5	-11	-5	-6	-6	-4	-11	-19	-15	-10	-14	-19	-22	-28	-12	-14	-9	-6	2	-8	-13	5	-1	-10
5		-11	-13	-27	1	2	1	-3	-10	-11	-12	-17	-10	-4	-5	-3	-2	-1	-10	-4	2	1	-1	-5	-2	-6
6		3	-1	-3	-2	-1	-4	-39	-8	1	-3	-22	-47	-19	-10	-11	-14	-5	-12	-20	-7	-11	-8	-1	0	-10
7		-2	-1	-4	-9	-8	-5	-6	-9	-18	-13	-9	-13	-11	-10	-9	-8	-7	-2	-5	-13	-14	-7	-2	-3	-8
8	Q	-4	-2	-1	0	1	0	-2	-1	0	-1	-1	-3	-7	-8	-6	-2	3	5	8	6	4	8	6	-1	0
9		-2	-1	-1	1	1	2	5	1	-1	-5	-7	-9	-6	-3	-13	-15	-6	-1	-5	-20	-25	-24	-24	-10	-7
10	Q	-16	-12	-9	-8	-7	-6	-8	-1	1	-1	-12	-4	-3	-5	-10	-7	-3	-12	-1	1	2	0	0	-4	-5
11	D	-5	-1	-5	-8	-8	-6	-7	-6	-4	1	-2	-3	-21	-17	4	59	240	261	11	-38	-39	-37	-24	-33	13
12	D	-32	-28	-34	-31	-23	-32	-35	-43	-32	-19	-26	-25	-22	-18	-18	-19	-36	-43	-34	-17	-32	-30	-48	-33	-30
13	D	-54	-23	-14	-33	-16	-15	-10	-16	-27	-31	-23	-21	-14	-24	-16	-25	-1	-26	-23	-11	-33	-47	-19	0	-22
14		-29	-26	-24	-24	-19	-25	-23	-18	-16	-19	-25	-24	-10	-19	-31	-12	-14	-4	-15	-33	-17	-16	-18	-18	-20
15	D	-21	-29	-32	-9	-8	-16	-37	-21	-17	-34	-42	-23	-13	-12	-11	-16	-18	-16	-22	-21	-24	-13	-24	-20	-21
16		-8	-18	-16	-18	-18	-17	-15	-15	-15	-21	-13	-12	-13	-11	-9	-9	-6	-9	-12	-10	-7	-18	-9	-9	-13
17	Q	-8	-11	-11	-14	-12	-11	-11	-12	-14	-15	-14	-9	-5	-2	-2	-3	-1	-3	-2	-12	-7	-11	-10	-13	-9
18		-14	-12	-7	-11	-12	-14	-12	-10	-9	-6	-5	-7	-10	-9	-4	-1	-10	-13	-4	-13	-31	-10	-7	-7	-10
19		-15	-12	-11	-4	-5	-4	-6	-7	-12	-13	-8	-8	-7	-5	-6	-8	-4	-5	2	-9	-13	-6	-4	-9	-7
20	Q	-6	-10	-11	-7	-7	-6	-2	-2	-5	-8	-7	-5	-3	-3	-4	-5	-12	-23	-12	-19	-16	-3	-3	-5	-8
21		-4	-6	0	-2	-1	-3	-4	-4	-7	-6	-2	-4	-7	-8	-20	-5	-5	-6	-5	7	4	0	0	-10	-4
22		-5	-3	-2		8	6	3	2	-1	-5	-6	5	5	-1	-18	-18	-16	-5	0	-6	-8	0	-2	-3	-3
23		-3	-4	-12	-7	-4	-6	-9	-10	-10	-11	0	-3	2	2	2	2	-2	-1	-1	-16	-9	-4	14	5	-1
24		-15	-11	-1	-7	-6	-8	-7	-19	-15	-10	-16	-8	-4	-6	-16	-18	-8	-12	-25	-24	-13	-19	-13	-4	-12
25		-8	-8	-7	-7	-12	-8	-10	-14	-21	-21	-20	-13	-14	-5	-3	-1	0	2	1	-2	-4	-1	5	-4	-7
26	Q	-3	-4	-3	-2	-1	-2	-3	-7	-7	-6	-3	-1	-1	2	1	5	7	9	9	9	11	10	10	9	2
27		6	7	8	5	10	14	7	-2	-6	-14	-15	-6	2	3	8	7	11	7	3	-10	-45	-37	-13	0	-2
28		-4	-5	-5	-2	2	3	-14	-19	-20	-24	-25	-39	-23	-18	-2	-27	-3	-6	-1	-2	19	-1	-14	-12	-10
29	D	-3	-4	-8	-3	9	-6	-1	-6	-9	-13	-7	-51	-23	-4	-25	-13	-9	-11	-6	-17	-10	21	-12	-18	-10
All Quiet		-11	-9	-9	-8	-5	-6	-9	-10	-11	-12	-13	-14	-10	-9	-10	-7	1	1	-8	-10	-12	-8	-8	-8	-8
Dist.		-27	-17	-18	-17	-9	-15	-18	-18	-18	-19	-20	-25	-19	-15	-13	-3	35	33	-15	-21	-28	-21	-25	-21	-14

February 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		249	247	242	227	230	244	244	242	248	247	246	244	241	240	250	253	246	249	249	249	261	270	272	256	248
2		252	248	249	248	248	245	241	228	228	228	232	235	246	254	236	246	305	285	262	251	255	289	267	251	251
3		220	234	264	242	230	228	214	205	218	237	238	241	248	248	270	264	260	282	269	255	259	261	246	255	245
4		254	238	259	257	251	250	249	249	243	237	238	234	246	250	259	273	249	248	267	274	270	260	249	257	253
5		260	261	244	252	249	245	244	243	231	227	230	246	241	239	242	245	247	256	249	248	249	252	255	262	247
6		246	257	253	252	249	244	192	210	237	238	234	238	244	241	250	264	287	287	304	279	255	250	243	243	250
7		255	260	259	257	250	249	242	240	239	237	241	240	239	239	240	246	249	249	250	276	262	252	252	249	249
8	Q	252	252	251	250	249	248	250	251	252	248	244	241	240	239	243	246	245	245	244	245	249	265	259	251	248
9		251	252	251	250	250	248	246	246	245	245	242	242	239	240	239	245	246	248	248	270	275	274	275	275	252
10	Q	260	252	252	250	250	249	246	241	237	236	242	238	236	236	246	241	246	269	249	247	249	251	266	263	248
11	D	256	253	255	254	253	252	251	252	249	241	236	224	222	201	203	230	202	242	263	267	258	264	286	282	246
12	D	271	269	271	268	263	258	235	212	225	229	242	241	234	249	253	253	340	319	253	276	239	296	303	267	261
13	D	254	247	281	271	268	238	244	240	238	244	250	233	244	238	271	252	274	258	266	261	284	277	280	303	259
14		305	282	284	264	261	254	247	247	247	238	242	249	234	241	252	278	281	293	268	258	258	287	276	269	263
15	D	271	267	242	285	276	256	215	240	244	243	237	245	248	247	251	275	265	267	262	260	259	263	278	269	257
16		289	263	260	261	258	259	258	258	255	246	243	243	242	248	248	251	249	246	244	246	250	259	257	260	254
17	Q	265	272	269	265	265	261	255	253	251	246	240	239	239	241	245	249	250	247	244	250	252	261	266	270	254
18		273	269	272	269	266	266	261	259	257	250	246	244	244	244	245	244	263	247	247	263	276	258	271	268	259
19		261	258	258	258	253	254	252	251	251	249	244	243	241	244	248	248	248	248	253	263	259	253	266	264	253
20	Q	259	262	262	261	261	258	255	254	250	244	240	237	235	237	241	238	232	234	251	266	264	256	254	258	250
21		261	263	261	263	264	256	251	249	249	246	241	235	233	238	246	240	236	239	256	277	257	253	265	276	252
22		267	267	264	256	255	249	247	245	242	235	236	224	225	235	229	232	243	242	243	247	278	278	258	259	248
23		255	262	260	250	255	256	253	250	242	240	228	229	230	236	237	244	245	243	262	263	255	257	288	278	251
24		274	254	263	265	259	250	249	244	238	235	228	227	229	227	227	240	252	245	277	267	278	269	255	240	250
25		250	255	259	259	253	256	257	253	245	235	233	228	227	232	242	244	247	246	253	265	253	252	258	266	249
26	Q	264	257	256	258	260	261	259	256	247	238	234	228	227	227	233	238	243	242	242	244	245	248	250	252	246
27		251	249	247	247	240	257	255	259	255	243	234	232	228	234	238	240	239	242	245	274	335	314	277	250	254
28		252	254	253	251	244	231	238	238	242	246	237	234	229	234	242	248	247	248	251	253	285	286	293	256	250
29	D	247	247	247	248	247	243	249	261	260	254	238	240	242	234	267	256	247	263	303	257	257	298	263	258	255
All Quiet		259	257	258	256	254	250	245	244	244	241	238	237	237	238	244	249	254	256	258	260	263	267	266	262	252
Dist.		260	250	258	257	257	255	253	251	247	242	240	237	235	236	242	242	243	247	246	250	252	256	259	259	249
		260	257	259	265	261	249	239	241	243	242	240	237	238	234	249	253	265	270	269	264	259	279	282	276	255

Nurmijärvi Finland

March 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-17	0	-1	-5	0	-3	-4	-11	-27	-28	-23	-12	-10	1	-8	-19	-13	-13	-12	13	-26	-23	-34	-85	-15
2	D	-21	-14	-26	-23	-14	-7	-10	-18	-44	-25	-18	-12	-9	-5	-14	-8	-13	-2	-2	-5	9	-8	6	-4	-12
3		-3	-3	-6	-4	3	1	-3	-10	-15	-25	-42	-29	-21	-10	-2	-6	3	-4	3	13	-5	-3	0	-2	-7
4		0	-1	-1	3	2	5	3	-8	-15	-16	-20	-19	-11	-4	-3	-5	-5	1	1	-1	-2	1	1	1	-4
5		2	1	5	-1	-3	5	-9	-11	-14	-17	-20	-7	0	1	2	1	0	2	1	3	2	2	5	1	-2
6	Q	1	-1	-1	-2	2	2	1	-8	-17	-21	-17	-10	-3	3	6	6	4	5	7	8	7	8	7	6	0
7	Q	4	3	3	3	3	3	2	-3	-14	-19	-22	-16	-9	-2	1	1	2	2	2	1	6	9	-1	2	-2
8	Q	4	3	4	5	6	4	2	-9	-27	-30	-21	-12	-8	-4	-1	-2	-3	-5	-1	2	3	4	4	3	-3
9	D	4	3	2	0	4	0	-4	-6	-21	-31	-22	-5	4	6	7	-1	106	65	74	-15	-13	-57	-77	-178	-6
10	D	-135	-54	-43	-18	-36	-59	-16	-47	-90	-55	-46	-26	-22	-3	-17	-19	-26	-22	-21	-17	-9	-25	-90	-91	-41
11	D	-52	-15	-24	-17	-9	-12	-21	-24	-38	-34	-35	-25	-14	-5	20	-4	-1	-13	-18	-84	-25	-62	-51	-47	-26
12	D	-106	-20	-23	-17	-26	-30	-38	-44	-45	-39	-33	-17	-16	-15	-10	24	-24	-29	-17	-4	-3	-7	-14	-6	-23
13		-13	0	-11	-13	-14	-15	-45	-62	-34	-31	-24	-28	-14	-9	-11	-20	-29	-21	-10	-8	-30	-24	-27	-18	-21
14		-33	-24	-12	-13	-12	-19	-24	-18	-37	-36	-31	-38	-34	-15	-8	-16	-15	-13	-7	-29	-50	-33	-22	-18	-23
15		-17	-9	-7	-20	-5	-6	-15	-19	-22	-37	-27	-25	-13	-21	-3	-4	-14	1	-13	-12	4	-8	-12	-16	-13
16		-10	1	-10	-8	-8	-13	-14	-15	-17	-19	-19	-12	0	-2	-5	6	-1	-5	0	1	17	-9	-26	-24	-8
17		-12	-15	-13	-10	-12	-2	-10	-13	-20	-24	-23	-25	-15	-9	-2	-1	-3	1	9	-8	10	-9	-8	-9	-10
18		-16	-25	-16	-9	-8	-12	-24	-19	-24	-24	-14	-18	-6	-7	-3	-2	-10	-1	8	-17	-15	-10	-4	-7	-12
19		7	-10	-4	-5	-3	-8	-10	-16	-19	-21	-17	-14	-3	-3	7	4	3	2	0	3	-4	0	6	4	-4
20		1	3	10	4	-1	1	3	-7	-21	-35	-29	-13	-4	-4	7	11	-1	15	-4	-5	-7	-3	0	-5	-4
21		-17	-2	-2	-3	1	4	-9	-22	-23	-22	-20	-10	-5	2	3	-7	-17	-12	-10	-5	9	-4	0	-2	-7
22		-4	-5	-5	-5	-5	-8	-12	-28	-30	-33	-24	-15	-9	0	2	-7	2	24	-9	-4	-11	-3	-5	-6	-8
23		-11	-19	-12	-1	0	0	-11	-15	-19	-23	-19	-14	-11	-5	-5	-1	1	2	-1	-6	11	-4	-1	-4	-7
24		-4	-3	-1	3	5	5	-1	-9	-15	-19	-17	-13	-6	-3	-1	-1	0	5	9	10	11	12	10	13	0
25	Q	7	5	6	8	11	13	10	0	-9	-20	-21	-16	-9	-3	4	5	5	14	9	4	8	10	9	7	2
26		9	10	7	9	13	17	16	6	-7	-19	-19	-19	1	-1	14	1	10	-18	-2	-1	19	-3	-1	-2	2
27		1	3	-2	0	6	8	6	-8	-11	-18	-14	-36	-18	-4	-3	8	14	-14	-18	-6	-4	-13	5	-22	-6
28		-18	-16	-26	-50	-39	-3	-13	-17	-36	-34	-29	-18	-18	-7	-14	-8	-4	8	-7	-10	6	-5	-6	-4	-16
29		-2	0	-7	-14	-9	-1	-12	-18	-35	-40	-29	-23	-20	-16	-20	-9	-9	6	-3	-1	2	1	10	0	-10
30		-2	-1	-1	-3	-2	-1	-20	-18	-25	-29	-32	-44	-19	12	23	-11	-9	-6	-4	-2	3	2	1	2	-8
31		-4	-7	-10	-6	-5	-8	-9	-17	-37	-42	-36	-27	-15	-4	-8	0	-8	-4	2	-9	-3	-1	-1	-2	-11
All Quiet		-15	-7	-7	-7	-5	-4	-9	-17	-26	-28	-25	-19	-11	-4	-1	-3	-2	-1	-1	-6	-3	-9	-10	-17	-10
Dist.		3	1	2	3	6	5	3	-6	-16	-22	-20	-14	-7	-2	2	2	4	5	5	7	9	6	6	-1	-1
		-62	-20	-23	-15	-16	-22	-18	-28	-48	-37	-31	-17	-11	-4	-3	-2	9	0	3	-25	-8	-32	-45	-65	-22

March 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		222	243	256	252	252	253	256	252	248	237	232	231	228	251	274	291	268	261	268	292	291	293	293	257	257	
2	D	255	248	236	250	262	262	267	261	263	253	245	240	236	243	263	282	268	256	255	256	274	273	255	258	257	
3		253	248	242	246	253	254	255	258	250	242	244	230	245	235	241	265	270	253	278	271	262	252	249	250	252	
4		248	249	249	249	252	254	258	259	256	245	238	236	238	243	247	252	254	267	261	253	254	253	248	247	250	
5		244	241	252	261	265	264	257	254	246	236	231	228	235	240	243	248	251	250	248	249	251	252	256	257	248	
6	Q	254	247	253	255	256	256	257	263	259	249	235	229	232	234	242	248	248	247	246	247	249	249	250	250	248	
7	Q	252	253	254	255	257	258	262	264	261	252	242	233	230	231	238	246	246	249	253	253	250	262	258	253	250	
8	Q	254	259	255	257	259	260	262	262	260	250	240	232	224	225	229	239	248	251	247	248	249	252	250	250	248	
9	D	252	252	254	251	252	261	264	265	262	245	234	223	213	203	207	217	255	271	267	279	279	281	340	323	256	
10	D	269	301	292	275	292	257	277	262	261	244	243	243	242	241	281	253	249	258	264	303	286	305	291	285	270	
11	D	268	284	284	264	255	260	266	263	266	249	246	239	235	239	230	291	280	311	334	308	344	317	311	305	277	
12	D	294	277	274	267	263	265	268	257	260	254	242	227	230	235	240	293	307	259	256	256	252	260	234	259	260	
13		264	253	271	269	268	272	259	220	237	243	225	228	228	233	250	251	250	253	287	289	287	291	277	282	258	
14		272	261	263	260	266	267	262	258	254	242	238	223	226	242	237	242	251	257	277	324	320	287	297	272	262	
15		272	270	285	268	270	266	273	275	264	257	240	231	216	229	236	242	246	283	283	274	273	268	269	264	261	
16		267	282	274	267	262	259	260	263	259	249	239	238	225	226	236	247	266	260	249	256	293	298	292	271	260	
17		252	279	270	268	266	263	265	263	257	250	238	233	227	233	238	247	252	259	277	262	262	265	264	267	257	
18		278	272	273	271	274	267	249	257	252	243	230	227	225	221	231	237	241	253	257	274	266	267	259	249	253	
19		263	289	275	271	273	268	267	266	260	247	229	221	219	227	240	244	245	245	240	246	260	248	249	253	252	
20		255	255	263	279	270	263	266	267	263	250	231	214	215	224	237	248	258	299	266	272	267	282	270	268	258	
21		265	269	263	255	261	263	262	259	253	235	222	218	208	210	242	235	251	261	274	266	281	260	256	254	251	
22		259	262	259	276	275	272	275	273	260	248	232	223	221	227	236	246	251	291	268	273	265	251	267	261	257	
23		278	258	251	260	269	272	270	272	265	253	239	233	231	234	240	245	250	251	249	251	276	269	265	262	256	
24	Q	256	260	260	261	261	265	269	271	267	255	239	232	230	234	241	245	246	246	246	249	250	251	252	253	252	
25	Q	255	256	255	255	256	260	265	272	268	256	238	224	216	220	231	241	241	247	254	252	247	245	250	255	248	
26		255	256	257	256	255	260	266	269	274	266	244	232	219	215	220	248	291	254	246	251	285	275	256	260	255	
27		257	253	241	258	263	266	268	266	265	249	221	215	210	209	236	243	307	306	263	262	262	268	301	287	257	
28		271	258	252	224	171	263	267	271	267	267	257	238	237	241	247	257	267	291	288	274	265	255	252	254	256	
29		258	258	258	252	246	259	269	271	267	255	242	236	229	231	244	248	267	291	257	252	249	248	254	256	254	
30		258	258	258	258	253	258	261	265	259	251	242	235	225	224	245	242	248	248	251	254	257	259	250	247	250	
31		252	259	259	257	261	267	271	272	267	252	234	222	218	226	245	253	258	265	291	261	258	250	252	255	254	
All Quiet		260	261	261	260	259	262	264	263	259	249	237	229	226	229	240	251	260	264	266	270	267	267	263	263	256	
Dist.		254	254	256	257	258	260	263	266	261	250	237	228	228	230	238	245	246	247	249	250	250	251	252	252	249	
		268	272	268	261	265	261	268	262	262	249	242	234	231	232	244	246	272	272	271	275	280	287	287	286	286	266

Nurmijärvi Finland

May 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1	Q	-4	-4	-2	-1	2	3	0	-11	-22	-28	-25	-23	-12	-1	-6	2	4	5	6	2	6	2	4	4	7	-4
2	Q	5	-1	0	2	3	1	-6	-15	-26	-33	-33	-28	-13	-5	0	4	2	4	7	8	8	8	7	7	-4	
3	D	6	3	-2	1	2	-2	-15	-16	-24	-23	-28	-33	-5	-17	32	32	64	178	-36	-110	-261	-226	-304	-258	-43	
4		-183	-48	-30	-20	-19	-23	-31	-41	-36	-30	-27	-20	-11	-6	-3	1	-4	0	3	7	8	2	0	3	-21	
5	D	0	-1	-3	-4	-1	2	3	-6	-15	-26	-27	-15	2	24	33	-5	9	49	12	-106	-68	-47	-61	-44	-12	
6	D	-49	-67	-41	-9	-16	-46	-42	-26	-24	-47	-36	-22	30	-27	-15	-15	-10	-11	-8	5	-8	-20	-27	-10	-23	
7		-15	-21	-33	-6	-8	-24	-25	-35	-44	-45	-42	-27	-10	-6	-2	4	1	1	2	-3	-4	-6	-17	-4	-15	
8		-12	-8	-3	-8	-16	-5	-23	-32	-32	-44	-41	-34	-21	-7	-9	-2	-13	-3	-5	2	0	5	7	-3	-13	
9	D	-3	-8	-5	-26	-23	-8	-3	-29	-43	-53	-38	-28	-20	-14	4	-10	-3	2	18	5	-2	1	-2	-7	-12	
10		-4	-3	-8	-13	-6	-4	-15	-31	-38	-44	-46	-35	-20	-10	-2	2	6	6	8	9	28	-32	-5	0	-11	
11		-4	5	-12	-6	-8	-10	-14	-16	-29	-34	-32	-25	-8	-5	-7	4	1	-3	11	-3	-17	-7	-10	-8	-10	
12		-6	-20	-6	0	2	2	-4	-4	-17	-29	-19	-12	-13	-6	3	-5	0	5	17	1	2	4	-1	-7	-5	
13		1	-3	-10	-7	-3	2	-8	-21	-25	-31	-33	-26	-19	-12	-4	4	1	5	8	15	3	4	2	-5	-7	
14		-2	-4	-10	-6	1	3	-4	-14	-19	-20	-20	-15	-7	-4	-2	0	4	3	4	3	0	12	3	2	-4	
15		2	4	4	1	-1	-1	-4	-9	-17	-20	-11	-4	5	11	10	-2	6	11	15	5	1	18	28	-1	2	
16		3	7	5	4	-5	-28	-45	-47	-41	-40	-23	-28	-32	-14	-1	0	2	-3	8	1	15	-1	-3	-7	-11	
17		-1	-2	-4	-4	-14	-11	-3	-9	-24	-36	-35	-28	-12	-7	9	8	8	9	14	4	-2	1	9	1	-5	
18		5	1	0	-1	-2	-7	-10	-24	-39	-37	-39	-30	-15	0	-14	-11	12	12	1	-1	2	7	1	-2	-8	
19		-6	-6	3	3	3	3	-4	-15	-31	-35	-27	-17	-2	7	9	12	11	16	11	6	6	3	8	7	-2	
20	Q	2	2	6	6	7	5	-4	-15	-27	-30	-24	-13	-5	-1	4	8	10	14	17	22	21	23	21	24	3	
21		5	7	9	12	7	11	7	-5	-17	-26	-26	-21	-7	-8	2	1	7	13	25	10	8	6	8	6	1	
22	Q	8	8	8	8	8	4	-1	-9	-18	-25	-28	-18	-11	-7	-3	6	8	11	20	12	15	14	12	15	2	
23	D	15	11	9	12	14	11	8	4	-10	-53	-44	-25	22	38	15	25	-14	-13	-9	-6	1	7	-17	-14	-1	
24		-4	0	2	0	0	0	-6	-17	-28	-30	-42	-44	-22	-9	-1	-3	8	8	8	10	10	6	9	6	-6	
25		1	-3	4	0	3	-4	8	-11	-40	-39	-34	-32	-16	-10	3	12	1	5	11	12	4	2	1	2	-5	
26		1	-5	-13	-6	1	-4	-12	-17	-19	-29	-31	-23	-13	-6	-3	-2	12	9	22	12	6	10	13	14	-3	
27		11	9	10	8	8	11	8	0	-11	-17	-18	-22	-17	-8	-6	1	16	15	2	7	10	11	9	8	2	
28		3	4	7	8	7	5	0	-7	-11	-15	-19	-10	-3	4	6	34	-4	5	12	13	23	-2	-5	9	3	
29	Q	1	1	2	1	-3	-6	-6	-10	-21	-28	-19	-11	-1	0	0	4	4	8	11	10	12	15	12	7	-1	
30		8	8	-1	2	-5	-10	-4	-11	-25	-26	-22	-18	-12	-4	2	7	5	17	18	29	4	-34	-40	-6	-5	
All Quiet		-7	-5	-4	-2	-2	-4	-9	-17	-26	-32	-30	-23	-9	-4	2	4	5	13	8	-1	-6	-7	-11	-9	-7	
Dist.		3	1	3	3	3	2	-3	-12	-23	-29	-26	-19	-8	-3	-1	5	5	8	12	11	13	12	11	11	-1	
		-6	-12	-9	-5	-5	-9	-10	-15	-23	-40	-35	-25	6	1	14	5	9	41	-5	-42	-68	-57	-82	-67	-18	

May 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	Q	256	259	257	259	260	266	272	273	269	256	239	228	224	231	250	248	249	250	254	258	261	257	252	251	253
2	Q	247	257	262	263	264	268	272	274	267	255	239	225	218	224	236	245	251	251	252	251	250	252	254	255	251
3	D	256	255	249	251	260	270	271	266	270	257	245	232	222	223	209	197	203	258	297	316	260	332	450	400	269
4		407	267	244	261	266	277	284	284	276	260	245	235	226	230	238	242	248	249	247	249	250	252	256	258	261
5	D	263	265	266	266	269	275	280	277	269	256	240	221	211	203	207	208	222	239	243	317	281	275	298	254	254
6	D	290	298	261	270	276	269	251	276	266	240	236	219	232	225	241	255	262	262	261	267	278	260	262	255	259
7		271	269	246	263	271	273	277	278	270	255	240	229	222	232	235	243	253	256	259	266	266	275	272	272	258
8		279	271	269	270	256	267	267	257	259	258	237	230	221	224	234	248	250	258	263	262	255	255	266	258	255
9	D	262	260	251	256	257	270	285	277	276	258	246	240	237	239	239	251	250	252	275	269	254	261	258	255	257
10		259	260	262	240	256	265	270	272	269	259	250	236	229	235	240	247	251	253	257	260	287	305	267	261	258
11		269	270	304	278	272	267	272	272	264	259	241	229	228	231	238	246	252	257	279	272	267	273	261	244	260
12		258	243	244	269	273	267	270	278	272	263	248	233	236	242	243	248	253	255	262	276	260	257	258	258	257
13		253	260	263	262	262	267	275	273	264	254	243	229	230	234	241	248	256	255	257	269	261	256	259	261	256
14		261	263	263	261	268	271	271	268	265	257	245	234	226	233	238	245	252	256	255	258	254	256	257	256	255
15		257	257	263	265	267	271	275	273	259	244	226	210	210	218	224	235	245	247	255	264	264	239	260	263	250
16		254	264	266	267	270	253	256	259	247	242	231	224	228	228	230	258	251	255	256	263	271	272	260	241	252
17		252	265	272	275	268	262	266	272	268	257	243	234	222	221	228	238	243	249	250	249	256	257	242	247	252
18		250	261	267	272	275	267	269	269	257	243	229	211	208	215	232	251	272	260	273	269	258	264	277	269	255
19		258	247	263	265	268	268	271	270	262	247	228	219	216	224	235	242	248	255	254	253	251	254	253	251	250
20	Q	247	253	265	269	274	276	273	268	259	251	235	228	228	232	235	239	244	246	246	243	246	258	267	261	252
21		261	260	262	266	258	258	269	267	263	255	240	229	221	225	233	243	251	249	260	262	250	251	253	254	252
22	Q	257	261	264	268	272	275	280	274	265	253	241	229	225	229	232	237	242	245	250	252	251	250	252	253	252
23	D	255	254	261	261	260	264	270	275	268	242	228	224	210	221	210	248	245	244	246	253	300	277	276	256	250
24		264	260	263	268	270	273	274	272	270	253	232	224	225	227	241	244	247	247	250	248	251	263	257	257	253
25		256	263	266	253	241	249	258	266	251	243	236	233	229	230	237	244	255	261	256	266	260	256	261	262	251
26		262	260	259	265	271	276	279	275	269	258	247	240	238	238	241	245	243	249	255	265	265	256	252	255	257
27		256	258	261	265	271	276	280	279	271	260	246	232	226	227	233	243	253	257	265	256	249	249	251	250	255
28		251	253	261	266	270	275	276	275	265	249	234	222	223	229	239	240	247	254	250	260	296	270	260	254	255
29	Q	263	266	267	265	260	255	263	264	259	251	242	233	231	238	242	248	251	252	252	252	255	258	261	261	254
30		261	261	255	253	236	242	269	270	262	257	247	236	233	239	243	246	246	243	247	247	300	337	326	275	259
All Quiet		264	261	262	263	265	267	271	272	265	253	239	228	224	228	235	241	248	252	257	263	262	267	269	262	255
Dist.		254	259	263	265	266	268	272	271	264	253	239	229	225	231	239	243	247	249	251	251	252	255	257	256	252
		265	266	258	261	264	270	271	274	270	251	239	227	223	222	223	234	237	251	264	283	265	285	309	288	255

Nurmajärvi Finland

April 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		1	-7	-23	-8	-6	-12	-18	-20	-21	-29	-28	-23	-10	-14	-8	11	9	8	24	15	6	1	-2	-9	-7	
2		-3	-1	-3	0	1	-8	-21	-29	-34	-30	-23	-31	-14	-5	0	9	10	13	14	14	12	9	5	4	-5	
3		8	10	9	1	3	-1	-6	-14	-25	-29	-25	-14	-4	6	8	2	10	28	18	16	16	15	17	8	2	
4		7	13	7	-7	-6	-9	-16	-24	-31	-43	-37	-24	-13	-7	3	4	11	15	20	12	6	0	-2	-2	-5	
5	D	4	2	2	-12	-21	-4	-6	-22	-40	-49	-35	-13	-14	0	3	10	37	25	14	16	6	5	17	5	-3	
6		2	-2	-2	-4	-7	-11	-19	-27	-26	-27	-35	-30	-19	-2	-2	12	5	13	24	7	9	11	4	5	-5	
7	D	-10	-3	-14	-20	-10	-23	-22	-33	-29	-26	-35	-25	-6	10	24	33	6	5	23	4	3	-1	-10	-5	-7	
8		-3	-1	-13	-3	-2	-1	-2	-10	-19	-36	-39	-20	8	15	12	15	22	17	10	0	-4	-3	-8	-10	-3	
9		-7	-1	-4	-2	-1	-3	-10	-20	-26	-32	-31	-25	-12	-17	-9	11	17	8	9	6	5	5	5	3	-5	
10		2	-1	-3	-5	6	6	-2	-10	-15	-29	-32	-25	-15	-3	3	9	10	13	17	12	12	6	7	7	-1	
11		22	3	3	-2	2	1	-8	-19	-28	-37	-33	-12	2	7	4	6	13	22	25	16	9	10	7	-14	0	
12		11	6	-14	-7	6	-1	-13	-22	-37	-32	-25	-12	-4	4	8	7	12	17	14	19	11	4	2	2	-2	
13		4	8	4	4	7	3	-17	-36	-30	-34	-20	-18	-5	-7	-3	-2	19	18	11	14	-2	-7	-6	(-4)		
14		-6	-4	-1	-3	-6	-9		-25	-25	-23	-14	-7	10	4	0	5	10	16	22	17	13	22	22	22	(2)	
15		16	9	3	0	1	-4	-11	-10	-16	-23	-26	-16	-8	1	12	15	17	15	19	14	8	7	9	1	1	
16	Q	-5	4	2	1	-1	-9	-14	-15	-20	-25	-29	-15	-2	0	5	7	10	17	18	16	11	6	1	-1	-2	
17	Q	2	4	2	2	-3	-9	-13	-19	-23	-20	-18	-5	0	6	5	2	7	10	12	13	16	20	13	15	1	
18	Q	8	9	8	6	4	-1	-11	-21	-28	-41	-27	-15	4	8	11	17	22	22	22	23	22	23	19	19	4	
19		19	19	18	10	-2	-5	-8	-13	-14	-17	-7	-1	3	4	38	60	41	28	18	12	11	14	11	15	11	
20	D	9	11	9	5	4	-2	-17	-13	-7	-17	-21	-51	-6	7	16	18	28	24	25	21	10	6	-4	-5	2	
21		-7	13	11	11	2	-7	-23	-35	-32	-32	-30	-11	4	1	5	5	14	16	12	12	7	7	6	8	-2	
22		9	13	11	9	1	-7	-6	-13	-39	-26	-24	-20	-9	-7	3	3	13	17	19	21	16	13	8	12	1	
23		11	-4	-3	2	-2	-6	1	-1	-12	-29	-36	-9	12	2	13	24	33	23	22	6	10	8	4	-5	3	
24		-8	9	6	6	3	1	-21	-57	-42	-38	-24	5	-18	3	-6	6	7	9	17	14	13	12	12	6	-4	
25		4	6	2	7	5	-5	-20	-28	-24	-31	-28	-17	-17	-10	-2	3	9	12	10	10	9	6	2	2	-4	
26	Q	1	3	7	9	5	-4	-12	-11	-18	-24	-23	-8	-7	4	13	15	12	15	17	17	17	20	12	11	3	
27	Q	14	15	12	13	3	-8	-17	-24	-26	-27	-29	-19	-10	5	10	11	17	22	15	11	14	12	12	11	2	
28		11	8	12	11	2	-8	-13	-19	-20	-23	-22	-15	-1	-3	9	24	30	30	27	16	-8	-28	-36	-33	-2	
29	D	-16	-6	-18	-9	-4	-16	-26	-33	-50	-41	-36	-33	-18	-6	5	20	4	6	24	29	27	17	-19	-7	-9	
30		-1	3	11	8	5	-1	-7	-16	-18	-24	-17	-24	-2	-13	1	7	31	24	29	18	2	-1	-2	7	1	
31	D	3	-20	-14	7	-3	-23	-38	-41	-40	-54	-31	-29	-14	-7	5	7	10	12	24	20	26	3	4	5	-8	
All Quiet		3	4	1	1	0	-6	-14	-22	-26	-30	-27	-18	-6	0	6	12	16	17	18	14	10	7	4	2	-1	
Dist.		4	7	6	6	2	-6	-13	-18	-23	-27	-25	-12	-3	4	9	10	14	17	17	16	16	11	11	2		
		-2	-3	-7	-6	-7	-13	-22	-28	-33	-37	-31	-30	-11	1	11	17	17	14	22	18	14	6	-2	-1	-5	

April 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		261	266	276	282	281	288	291	280	263	249	237	230	230	234	239	242	243	246	260	257	249	253	258	251	257	
2		240	262	273	273	276	277	276	270	258	244	228	226	230	233	242	247	251	250	247	248	250	260	263	266	254	
3		266	264	265	268	271	277	279	274	261	242	230	225	222	226	233	240	245	246	250	254	246	245	237	270	251	
4		264	271	278	278	270	277	272	265	249	242	232	221	221	234	243	248	250	252	263	257	266	263	260	258	256	
5	D	270	278	281	275	263	257	271	269	254	237	233	220	221	222	224	231	230	261	265	256	254	272	264	263	253	
6		263	260	258	271	277	277	279	271	256	246	236	227	233	237	243	245	252	256	264	278	263	256	240	267	256	
7	D	268	272	267	260	251	273	277	267	255	245	235	231	229	245	250	255	249	249	243	257	263	253	248	264	254	
8		271	267	268	265	274	268	267	265	258	245	228	223	223	233	243	250	252	253	252	247	258	251	249	241	251	
9		252	264	273	276	269	271	276	277	268	255	237	226	225	231	239	243	262	255	255	255	253	255	257	258	255	
10		262	264	268	260	263	273	280	278	272	262	249	235	229	228	231	239	248	252	253	265	259	264	260	263	257	
11		271	285	275	259	270	275	276	272	260	244	231	221	219	225	229	235	242	248	248	267	264	253	293	330	258	
12		310	297	268	219	261	286	284	277	265	254	238	221	220	226	237	243	247	254	258	268	265	265	267	262	258	
13		267	269	275	278	280	277	276	275	251	247	238	230	235	242	247	250	256	258	260	256					(259)	
14		266	269	275	278	282	281		274	261	244	229	219	218	225	232	240	245	243	244	249	253	252	254	252	(252)	
15		257	277	280	281	287	288	285	281	270	254	236	222	224	230	237	249	255	255	252	252	254	255	255	270	274	259
16	Q	262	267	280	285	284	282	273	267	253	236	223	222	222	228	235	242	247	257	254	254	258	268	274	266	256	
17	Q	267	268	273	273	280	279	277	273	267	256	239	229	232	238	242	243	243	246	249	248	251	248	264	261	256	
18	Q	270	271	277	277	276	279	280	277	267	247	230	222	223	231	238	243	247	247	247	247	248	249	255	257	254	
19		261	265	271	280	281	276	274	267	257	246	236	228	229	237	236	238	248	251	254	241	236	242	248	254	252	
20	D	268	274	279	282	283	279	267	259	261	246	236	227	229	231	236	241	249	250	247	247	265	285	282	270	258	
21		244	279	283	281	280	280	274	268	261	250	236	227	224	232	241	253	258	255	256	255	256	257	256	255	257	
22		256	256	263	273	273	264	280	277	259	252	240	231	224	226	232	243	253	255	256	256	255	256	259	259	254	
23		255	245	249	257	270	264	272	280	280	266	250	231	219	225	235	240	246	258	272	265	270	261	267	270	256	
24		242	262	273	278	281	282	295	287	265	259	246	227	225	231	235	245	251	257	258	259	258	258	259	254	258	
25		261	260	263	271	284	291	292	280	267	251	241	230	231	242	247	254	255	254	255	253	257	255	256	257	258	
26	Q	260	261	267	272	278	281	281	277	267	252	238	229	233	238	248	254	258	257	254	251	250	255	254	254	257	
27	Q	257	259	260	276	281	287	284	278	267	251	238	228	229	233	242	247	251	254	253	250	252	249	251	258	256	
28		254	253	261	272	282	288	289	284	270	252	240	229	227	231	238	249	256	256	261	256	262	290	282	283	261	
29	D	290	296	268	255	281	286	292	283	263	247	232	225	226	228	237	243	254	253	249	249	256	257	253	263	258	
30		278	283	284	289	294	294	290	289	274	257	235	219	218	223	231	239	238	243	254	286	292	286	303	313	268	
31	D	287	265	247	282	289	289	285	273	264	252	240	229	230	233	234	241	243	245	253	261	283	265	270	266	259	
All		264	269	270	272	276	279	280	275	263	249	236	226	226	231	238	244	249	252	254	256	258	259	262	266	256	
Quiet		263	265	271	277	280	281	279	275	264	248	234	226	228	234	241	246	249	252	251	250	252	254	259	259	256	
Dist.		276	277	268	271	273	277	278	270	260	245	235	226	227	232	236	242	245	251	251	254	264	266	263	265	256	

Nurmijärvi Finland

June 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	D	6	-21	-11	10	-4	-8	-21	-27	-46	-29	-17	-10	26	-19	4	26	25	17	16	23	11	4	0	-6	-2
2		7	3	7	5	-5	-11	-18	-23	-34	-44	-24	-10	-2	3	13	23	18	22	30	21	5	-6	13	4	0
3		-2	-5	-8	-18	-2	0	-16	-25	-20	-33	-27	-12	2	7	18	16	20	15	18	17	20	12	3	-2	-1
4		-4	-2	10	8	10	3	-1	-14	-24	-29	-25	-17	-4	7	14	11	5	6	12	17	10	10	2	2	1
5		7	8	8	8	8	6	-6	-20	-26	-22	-13	-26	6	22	-2	30	30	34	14	12	12	-4	-6	-15	3
6		-5	7	-11	-8	-4	-9	-16	-29	-28	-31	-20	-22	-11	16	15	26	30	21	12	25	23	7	3	5	0
7		5	-3	5	9	2	-3	-14	-20	-28	-24	-35	-17	-15	8	23	27	24	21	22	14	3	-11	-32	-24	-3
8		-21	-2	-7	-4	-6	-15	-30	-40	-44	-34	-28		2	14	8	7	-2	22	23	18	17		7	3	(-5)
9	D	-1	-1	6	1	-8	-21	-37	-25	-19	-29	-11	-13	2	-2	12	26	11	24	22	23	12	8	-1	4	-1
10		10	-7	4	-1	-7	-9	-17	-17	-20	-21	-15	-2	8	9	4	5	9	14	23	28	20	5	0	-1	1
11		-14	-5	9	3	-2	-9	-17	-31	-31	-27	-21	-11	-8		5	11	15	12	9	14	12	11	7	7	(-3)
12		8	9	7	2	0	-2	-11	-16	-21	-24	-20	-6	-9	-3	4	10	10	13	14	13	13	10	7	5	1
13		7	9	10	9	0	-12	-15	-16	-10	-7	-4	-6	0	10	22	23	26	21	21	23	26	26	26	19	9
14		28	30	30	24	15	11	6	-5	-6	-8	-4	11	28	-12	-17	8	25	6	10	21	15	12	11	13	11
15	D	10	19	18	11	4	-2	-44	-53	-24	-8	-3	-1	44	12	31	31	27	12	14	7	10	-1	-7	-2	4
16		2	7	4	1	-6	-17	-26	-39	-30	-37	-21	-7	13	18	10	6	14	10	9	11	6	8	12	14	-2
17		10	9	8	5	-7	-14	-20	-19	-18	-19	-23	-9	9	11	16	22	12	10	13	23	13	3	1	4	2
18		4	11	8	3	2	-8	-11	-17	-16	-20	-21	-13	6	16	61	38	31	5	12	12	7	5	4	0	5
19		3	2	11	15	9	1	-10	-18	-27	-19	-12	-12	5	-4	9	12	11	17	13	18	16	12	9	10	3
20	Q	11	11	12	7	3	-2	-9	-17	-21	-28	-22	-18	-6	4	9	18	18	18	26	17	13	13	14	14	3
21		14	15	16	14	11	5	-2	-13	-19	-14	-9	1	7	16	19	19	13	13	21	19	16	12	11	9	8
22	Q	10	11	13	10	2	-4	-7	-12	-16	-23	-20	-19	-5	8	9	16	16	15	18	19	19	16	12	11	4
23	Q	11	14	16	17	11	1	-7	-12	-15	-17	-17	-14	-3	8	12	22	16	15	18	21	22	20	15	12	7
24		14	18	19	18	14	4	-16	-22	-25	-24	-20	-15	6	4	17	23	22	18	16	18	17	16	15	15	6
25	Q	16	16	15	12	6	6	-1	-3	-7	-10	-12	-10	-5	-9	7	18	27	25	19	16	10	5	6	6	6
26		8	9	12	11	8	-2	-11	-15	-16	-16	-14	-11	1	8	31	19	20	27	23	15	4	2	0	-10	4
27	Q	-4	-2	0	1	-3	-7	-12	-14	-13	-17	-20	-17	-16	-4	3	16	23	22	22	21	17	13	9	12	1
28	D	17	17	18	-8	12	2	-8	-18	-26	-25	-32	-15	-15	-12	13	11	20	29	30	39	21	21	31	15	6
29	D	-12	0	-10	-7	2	-20	-46	-46	-37	-40	-44	-27	-19	-1	8	23	20	27	27	4	-2	-7	1	-10	0
30		-4	-6	2	3	-7	-19	-23	-21	-29	-26	-19	-14	-2	7	7	12	20	23	21	19	14	12	12	13	0
All Quiet		5	6	7	5	2	-5	-15	-21	-23	-23	-19	-12	1	4	12	18	19	18	18	19	14	8	6	5	2
Dist.		9	10	11	9	4	-1	-7	-11	-14	-19	-18	-15	-7	2	8	18	20	19	20	19	16	13	11	11	4
		4	3	4	1	1	-10	-31	-34	-30	-26	-21	-13	8	-8	12	20	21	20	22	24	12	6	3	2	0

June 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	D	268	251	240	263	282	292	292	276	268	250	236	226	236	237	240	249	246	256	250	253	244	264	241	256	256
2		256	264	275	283	283	288	285	281	267	254	243	229	226	234	238	243	255	249	248	265	260	241	255	265	258
3		265	270	276	268	268	272	282	277	268	252	240	230	229	233	233	236	248	249	247	252	254	260	283	277	257
4		278	263	264	272	277	280	281	277	268	255	237	225	220	219	229	240	249	250	253	254	257	253	254	251	254
5		248	265	271	284	289	297	294	287	269	253	233	225	216	216	231	236	246	255	264	254	257	277	301	289	261
6		264	267	266	260	272	278	293	291	278	261	239	227	225	227	249	243	244	249	253	254	261	258	260	260	257
7		263	250	262	286	291	294	293	284	268	248	229	218	229	231	242	250	255	256	250	248	247	266	265	298	259
8		306	272	255	278	298	301	297	287	271	252	237		229	232	240	247	248	248	253	247	254	254	257	(262)	
9	D	248	267	283	283	289	286	271	259	260	254	247	237	237	226	225	228	247	270	249	246	247	254	255	252	255
10		253	251	287	295	284	279	275	270	262	258	249	237	227	229	238	242	244	245	244	248	285	273	266	278	259
11		272	257	285	284	288	290	290	285	268	254	236	230	234		245	251	252	261	256	253	256	258	261	(262)	
12		266	267	269	275	283	285	283	271	261	253	245	237	231	233	242	250	255	255	254	253	251	252	254	258	257
13		261	264	268	273	280	280	277	274	264	253	238	227	220	219	221	234	243	249	254	253	254	250	246	257	252
14		258	263	270	275	276	283	286	283	272	260	238	227	227	241	243	252	250	254	255	254	262	254	259	261	258
15	D	259	267	273	283	283	282	288	247	234	244	244	244	244	244	244	251	255	261	252	253	279	262	258	257	258
16		270	273	273	281	291	285	287	270	273	257	248	242	242	243	247	250	252	254	254	257	258	258	254	267	262
17		268	268	271	276	277	280	276	275	265	255	241	230	234	241	242	248	253	253	252	257	269	264	262	266	259
18		265	273	282	289	288	283	277	277	265	253	235	225	230	245	255	252	252	253	246	243	247	252	257	261	259
19		268	271	279	284	284	279	273	268	257	252	244	238	242	246	247	251	255	252	251	250	250	252	256	259	259
20	Q	263	267	274	279	282	286	288	284	273	258	247	235	233	231	239	243	248	253	259	256	255	257	258	259	259
21		260	264	266	271	278	284	286	280	272	259	240	227	225	231	237	243	248	251	254	253	254	260	261	263	257
22	Q	267	271	275	282	283	282	289	291	284	270	250	236	234	237	241	241	243	248	255	255	255	259	258	258	261
23	Q	260	265	271	280	283	283	282	278	266	252	236	224	225	234	241	248	252	250	248	250	248	249	254	254	256
24		257	263	273	279	285	288	282	264	260	252	242	233	227	233	240	248	252	253	255	253	254	255	256	256	257
25	Q	258	260	269	279	285	289	289	280	263	248	238	230	231	235	238	241	245	246	252	256	255	259	260	265	257
26		270	270	273	278	281	281	282	283	272	258	247	232	228	230	235	248	255	250	246	250	253	254	265	275	259
27	Q	281	276	279	281	283	281	284	279	269	256	240	232	230	235	244	249	251	256	256	254	252	255	257	260	

Nurmijärvi Finland

July 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		6	9	5	0	-4	-16	-23	-37	-40	-36	-27	-12	-7	8	22	17	19	17	17	11	11	10	8	7	-2	
2		9	10	8	-3	-11	-8	-13	-19	-31	-33	-25	-5	-9	20	21	22	35	32	20	17	8	6	-4	-13	1	
3		6	6	10	6	1	-14	-20	-42	-36	-29	-23	-12	-4	5	9	11	16	14	23	22	9	8	7	5	-1	
4		7	12	11	9	3	1	-9	-21	-23	-22	-25	-16	-3	-1	9	19	17	24	12	14	11	9	8	7	2	
5		10	2	1	-1	-1	-1	-7	-16	-18	-19	-20	-15	-9	-2	3	16	17	22	22	16	11	9	7	3	1	
6	Q	10	10	10	6	-9	-14	-9	-3	-14	-18	-25	-30	-14	-6	1	10	15	19	17	16	12	9	5	3	0	
7	Q	7	6	6	7	7	4	4	2	-10	-7	-2	-15	0	5	13	12	16	16	15	17	10	8	8	8	(5)	
8	Q	8	9	11	14	13	4	-4	-11	-16	-23	-26	-22	-10	-2	7	10	13	19	21	21	20	18	16	15	4	
9	Q	14	13	17	18	15	8	2	6	1	-10	-21	-19	-13	-4	3	11	12	22	27	21	22	19	17	16	8	
10		15	16	15	11	15	12	1	-17	-24	-25	-16	-3	-5	3	6	11	23	7	25	32	27	23	25	25	8	
11		24	20	16	22	18	4	-8	-14	-21	-24	-48	-14	-3	-10	20	24	20	17	29	30	21	8	7	7	6	
12		9	12	29	23	17	10	0	-8	-11	-22	-26	-23	-14	-5	21	13	18	21	17	16	22	20	3	15	7	
13		2	4	12	4	1	-6	-27	-45	-41	-32	-22	-22	-6	8	27	7	20	35	24	9	5	10	10	10	-1	
14		11	10	12	7	-1	-19	-29	-23	-31	-35	-27	-18	-11	0	12	13	16	15	13	11	12	9	9	2	-2	
15		-2	5	7	1	-11	-21	-23	-26	-29	-34	-28	-14	0	9	14	16	20	9	23	21	23	8	-8	5	-1	
16		13	16	22	18	9	2	-6	-18	-26	-28	-29	-24	-16	-16	1	3	18	37	33	25	22	16	-2	-22	2	
17		-59	-83	-142	-11	-11	-16	-17	-52	-46	-45	-62	-63	-41	-26	-6	9	18	22	16	6	-1	-3	-1	-7	-26	
18		-9	-5	-1	2	-2	-18	-25	-37	-49	-43	-38	-32	-27	-18	1	16	26	21	17	6	2	0	0	-5	-9	
19		-2	4	2	-2	-1	-3	-16	-29	-34	-50	-46	-44	-31	-3	2	27	11	21	20	18	6	2	-8	-13	-7	
20		-4	-1	-4	-3	-5	-17	-37	-41	-43	-45	-39	-28	-31	-11	13	7	11	7	25	20	23	8	0	-4	-8	
21	Q	-3	1	1	2	-3	-7	-14	-15	-18	-26	-30	-31	-21	-9	-4	6	11	13	7	5	8	7	4	3	-5	
22		2	3	5	9	7	7	-3	-13	-21	-31	-37	-26	-7	-2	-21	35	-2	23	14	40	31	37	-67	-217	-146	-16
23	D	-207	-69	-108	-128	-131	-162	-159	-157	-145	-70	-55	-32	20	92	142	117	78	37	0	-10	-10	-13	-17	-15	-42	
24	D	-8	-3	-3	-6	-15	-30	-33	-27	-26	-33	-31	-24	45	-39	-6	24	39	53	12	8	2	-4	-27	-96	-10	
25	D	-143	-152	-188	-236	-249	-243	-204	-150	-104	72	105	397	403	363	168	276	319	68	9	-79	-107	-195	-431	-188	-21	
26	D	-186	-76	-117	-55	-29	-38	-46	-56	-65	-68	-59	-43	-21	-19	-19	-17	-11	-1	0	-9	-3	-7	1	-119	-44	
27	D	-541	-239	-78	22	-1	-88	-223	-190	-137	-224	-23	260	469	588	245	397	35	30	-24	-57	-78	-108	-72	-166	-8	
28		-42	-33	-46	-60	-49	-96	-79	-57	-52	-43	-50	-43	-13	11	28	48	-3	-22	-14	-8	-28	-37	-37	-32	-32	
29		-50	-45	-33	-40	-47	-38	-48	-43	-47	-40	-32	-29	-27	-28	-23	-20	-19	-9	-13	-12	-16	-21	-23	-25	-30	
30		-29	-28	-28	-26	-20	-22	-32	-43	-50	-52	-47	-34	-33	-22	-16	0	-5	1	-6	-4	-12	-1	-12	-2	-22	
31		-8	-8	-7	-12	-15	-19	-25	-36	-46	-41	-33	-14	-4	-7	5	10	-11	-10	-11	-13	-11	-15	-14	-12	-15	
All		-37	-19	-18	-13	-16	-28	-37	-40	-41	-38	-28	-1	18	28	24	36	26	18	13	6	2	-8	-24	-24	-8	
Quiet		7	8	9	9	5	-1	-4	-4	-11	-19	-26	-25	-15	-4	2	10	13	18	18	15	16	13	10	9	2	
Dist.		-217	-108	-99	-81	-85	-112	-133	-116	-96	-64	-13	112	183	197	106	159	92	38	-1	-29	-39	-65	-109	-117	-25	

July 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		268	264	275	290	296	291	287	272	265	256	245	242	236	237	242	249	254	253	255	258	255	261	253	252	261
2		261	270	279	283	275	279	284	281	270	254	242	231	230	228	236	241	246	259	255	251	250	255	256	239	256
3		262	279	276	288	298	296	288	272	256	245	234	220	216	229	236	247	253	258	261	269	259	255	258	261	259
4		262	258	280	291	289	283	278	274	269	257	244	240	238	237	242	246	251	257	258	260	260	259	260	255	260
5		263	274	281	287	292	286	286	285	277	259	239	228	225	226	236	247	255	258	261	263	259	259	259	240	260
6	Q	253	266	273	278	283	267	277	287	280	263	243	234	233	234	238	247	250	256	259	258	258	262	264	265	257
7	Q	266	269	276	282	286	292	292	293	283	235	230	232	239	247	252	255	257	258	265	261	260	262	(263)	263	263
8	Q	266	271	278	281	277	280	282	281	272	261	246	233	228	226	231	237	245	251	253	254	256	258	262	263	258
9	Q	264	268	273	281	282	278	280	279	274	260	248	240	238	237	238	241	245	249	253	258	252	256	256	256	259
10		256	260	264	263	272	278	282	281	268	262	250	239	233	233	238	247	258	263	258	254	252	254	252	249	257
11		253	249	278	285	290	289	290	287	273	257	235	221	214	232	239	246	249	256	257	261	256	262	265	266	260
12		252	272	274	271	283	280	278	283	277	265	250	240	237	247	255	260	257	260	258	256	253	286	263	265	263
13		251	281	285	295	304	293	274	273	268	254	246	244	237	238	239	244	254	256	272	276	267	265	261	269	265
14		269	268	272	274	278	277	273	273	268	258	246	234	230	237	250	254	259	260	256	254	254	257	258	257	259
15		265	275	280	286	288	287	290	285	275	259	237	218	215	222	231	239	250	253	255	251	254	260	276	283	260
16		276	272	275	281	287	286	286	279	269	259	251	233	222	219	223	241	248	262	263	264	263	272	273	306	263
17		302	254	250	276	282	284	297	280	282	277	263	256	251	248	249	257	264	268	272	270	275	268	269	265	269
18		268	273	277	283	289	289	280	275	266	269	262	247	241	241	242	245	254	260	261	266	260	258	255	264	264
19		263	269	279	283	289	291	293	290	281	264	248	226	221	225	232	242	254	263	261	259	264	264	273	268	263
20		273	274	275	291	303	307	296	287	274	251	234	221	214	223	233	250	255	256	261	263	255	257	260	268	262
21	Q	270	269	274	282	287	290	294	280	273	269	256	244	236	233	240	248	257	266	263	262	259	259	258	260	264
22		261	267	271	279	288	300	299	296	281	264	246	226	216	218	219	250	252	260	257	261	270	268	406	348	271
23	D	325	281	235	245	236	249	252	273	289	263	254	260	266	256	280	276	272	270	263	254	256	265	272	264	264
24	D	273	276	290	301	301	302	294	276	262	246	232	225	235	258	275	274	240	260	281	240	274	260	263	278	267
25	D	228	269	214	196	271	262	294	305	337	354	349	316	245	199	241	232	271	276	247	330	289	314	377	331	281
26	D	394	342	317	296	297	302	301	292	282	276	265	254	247	244	254	259	259	257	259	266	284	275	362	302	283
27	D	332	420	336	337	324	300	276	270	285	359	362	409	437	282	189	152	263	250	269	222	232	292	269	289	298
28		281	280	279	291	295	292	286	292	292	287	274	260	249	256	262	270	262	272	269	290	273	293	269	276	276
29		274	294	293	295	293	294	297	292	282	278	276	269	258	256	260	264	273	272	271	273	270	268	271	275	277
30		276	281	281	283	286	288	292	291	286	273	258	245	247	254	257	262	267	268	264	268	267	264	268	270	271
31		280	281	283	284	279	280	286	285	277	266	245	227	231	233	238	253	266	264	262	269	266	271	268	269	265
All		274	277	276	282	287	286	286	283	278	269	256	246	240	237	241	247	256	260	261	262	262	265	272	272	266
Quiet		264	269	275	281	283	281	285	284	276	263	248	237	233	232	237	244	250	255	257	258	258	259	260	261	260
Dist.		310	318	278	275	286	283	282	283	291	300	292	293	286	248	248	239	261	263	264	262	267	279	287	294	270

Nurmijärvi Finland

August 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-14	-19	-16	-13	-12	-12	-19	-30	-38	-42	-38	-32	-25	-13	-10	-6	-7	-8	-10	-4	0	-2	-10	-17	-17
2		-20	-23	-21	-14	-18	-21	-29	-37	-46	-34	-25	-30	-21	-9	-1	-5	-3	-2	0	3	-1	-8	-14	-21	-17
3	Q	-6	-3	-3	-10	-16	-16	-14	-18	-25	-31	-32	-24	-18	-14	-6	-4	-3	-4	-5	-4	-5	-6	-6	-6	-12
4	Q	-6	-5	0	-5	-6	-9	-10	-14	-19	-27	-29	-32	-24	-17	-8	-5	-11	0	6	7	6	5	-1	1	0
5		-2	-2	0	2	-3	-8	-14	-16	-20	-22	-22	-22	-18	-7	5	13	10	12	6	7	9	3	-2	-6	-6
6		-11	-11	-1	6	-2	-9	-18	-28	-37	-38	-30	-20	-13	-8	-7	-1	-1	1	8	16	13	13	10	10	-7
7		7	10	7	-3	-8	-12	-10	-24	-32	-38	-27	-30	-28	-37	-3	-5	-12	-5	1	2	8	-9	-11	-4	-11
8	Q	-10	-7	-7	-10	-18	-17	-18	-23	-30	-35	-35	-30	-23	-21	-11	-8									(-19)
9																										(-21)
10	D	-11	-19	2	-3	-12	-20	-27	-33	-41	-49	-32	-23	-13	12	11	23	40	18	6	-7	-16	-20	-29	-14	-11
11		-8	-6	-5	-10	-12	-17	-17	-30	-44	-47	-22	-17	0	12	11	16	-5	-1	5	9	-2	-6	-8	-5	-9
12		-13	-11	-7	-2	-2	-8	-26	-39	-43	-40	-30	-16	-4	-4	-1	2	-4	3	2	1	-1	-1	-10	-13	-11
13		-13	-18	-10	-1	-6	-9	-18	-32	-42	-42	-36	-34	-19	-14	-3	0	8	7	0	-5	0	9	2	-12	-12
14		8	7	9	9	10	5	-12	-31	-35	-43	-45	-37	-23	-9	0	3	2	-3	2	3	0	-5	-4	-7	-8
15		-7	-6	-3	-2	-3	-8	-20	-35	-47	-54	-46	-31	-5	-9	-2	-3	-2	2	0	0	-1	-8	-9	-10	-13
16		-8	-4	-1	0	-10	-19	-24	-31	-34	-30	-27	-18	-12	-11	3	4	8	1	9	10	9	4	-5	-1	-8
17		-1	-6	-6	-3	-9	-23	-40	-50	-56	-46	-31	-16	-5	27	13	17	9	21	14	4	-3	-1	-9	-5	-9
18		-5	2	-9	-17	-15	-13	-28	-21	-34	-25	-25	-30	-22	-13	-5	0	2	8	9	5	6	9	5	5	-9
19		0	0	3	0	-3	-8	-15	-25	-33	-33	-32	-17	-10	-4	-2	17	2	10	7	10	13	4	4	4	-5
20	D	-1	-12	-1	5	4	0	-4	-11	-19	-26	-31	-19	-16	-1	-12	1	14	10	2	-5	1	1	0	1	-5
21	D	-7	-8	-20	-20	4	-3																			(-8)
22		-10	-6	-4	-6	-21	-22	-36	-40	-32	-40	-31	-25	-38	-24	-6	11	16	2	4	3	7	4	-2	-12	-13
23		-3	-5	-5	-6	-13	-17	-17	-23	-30	-35	-29	-14	-14	-9	-1	4	5	2	-3	-6	-7	-9	-8	-11	-11
24	Q	-7	-8	-7	-6	-8	-12	-12	-15	-18	-23	-24	-22	-18	-7	1	2	-6	-1	0	0	-2	-1	0	-2	-8
25	Q	-3	-5	-7	-6	-6	-7	-5	-7	-12	-16	-20	-10	-12	-7	-5	3	-1	2	1	4	5	-2	-7	-4	-5
26		-3	-4	0	0	-3	-7	-13	-17	-20	-27	-31	-23	-14	-13	-1	-5	2	4	13	4	4	0	-3	-5	-7
27		-3	-5	-1	-2	-5	-10	-17	-26	-34	-33	-22	-13	-10	-5	-13	-8	-5	7	1	-1	-4	-3	0	-4	-9
28		-10	-5	-1	-1	-3	-2	-15	-23	-45	-37	-25	-8	-5	-3	3	6	-3	-3	-5	6	-4	4	-4	-4	-8
29		-4	-4	9	-12	-7	-7	-18	-30	-37	-37	-21	-14	-3	14	8	5	5	12	13	14	5	9	10	12	-4
30	D	11	10	6	8	10	7	-8	-21	-38	-37	-44	-26	-2	59	99	141	97	16	-81	-141	-141	-257	-369	-240	-39
31	D	-139	-95	-98	-81	-63	-56	-49	-99	-68	-45	-54	-41	-21	-12	6	-2	-19	-12	-9	0	-27	-21	-18	-19	-43
All		-10	-9	-7	-7	-9	-12	-20	-29	-36	-35	-31	-24	-15	-6	1	6	5	1	-1	-5	-11	-18	-16	-12	-12
Quiet		-6	-6	-6	-7	-11	-12	-13	-16	-22	-27	-29	-22	-17	-11	-5	-3	-2	1	1	2	1	-2	-3	-3	-9
Dist.		-29	-25	-22	-18	-11	-14	-22	-41	-44	-38	-39	-30	-15	11	22	35	31	8	-14	-26	-36	-60	-84	-57	-22

August 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		270	251	281	304	298	301	298	289	280	266	252	246	243	242	245	255	265	271	268	270	271	288	274	277	271
2		280	287	294	300	295	295	297	285	275	268	249	241	237	240	248	253	258	261	259	267	267	269	278	263	270
3	Q	274	280	285	289	284	283	282	281	274	266	251	239	234	241	247	254	258	261	265	266	267	268	271	272	266
4	Q	272	273	275	279	283	287	289	288	274	259	244	229	229	239	247	255	257	258	259	259	261	262	266	266	263
5		269	271	274	282	288	290	287	281	271	255	236	226	224	232	240	251	260	262	262	259	266	263	275	278	263
6		281	270	276	296	300	299	295	288	278	266	253	240	234	238	243	249	254	257	256	253	256	262	268	256	265
7		255	277	273	275	272	255	265	265	256	245	234	224	228	240	251	268	267	266	262	260	278	272	278	257	259
8	Q	271	274	277	282	282	287	291	289	278	268	262	254	249	253	259	265									(271)
9																										(267)
10	D	314	312	278	281	288	290	285	282	272	256	246	242	248	249	264	265	269	275	286	272	267	308	296	286	276
11		262	269	275	274	274	276	278	272	256	243	224	227	233	239	254	274	266	267	261	284	268	264	260	259	261
12		267	282	290	290	292	294	295	291	278	256	240	231	234	245	257	264	276	265	261	261	262	278	267	261	268
13		254	256	273	281	291	294	300	298	282	257	234	226	228	239	251	260	265	268	270	261	258	264	284	277	265
14		288	290	291	293	298	301	305	297	282	258	229	220	221	233	247	256	262	264	259	261	264	267	268	270	268
15		274	275	279	285	292	297	299	294	283	263	243	228	222	241	255	265	269	267	266	264	268	267	268	271	268
16		274	275	277	282	288	295	294	289	277	260	241	228	226	230	241	249	257	264	263	262	264	281	276	270	265
17		270	271	296	295	299	302	293	276	258	239	221	218	228	228	248	251	260	251	285	267	260	262	282	277	264
18		281	284	285	294	292	296	294	265	260	248	232	226	228	237	244	254	260	261	261	263	262	269	272	252	263
19		275	275	277	279	281	280	279	275	266	253	240	232	236	243	251	260	266	264	262	262	259	264	267	265	263
20	D	268	260	263	287	279	270	272	272	266	258	242	232	229	223	245	254	270	269	279	270	263	260	262	248	260
21	D	275	277	272	246	269	286																			(266)
22		306	286	283	281	277	273	268	270	269	258	247	235	244	248	252	263	288	259	261	260	253	275	279	265	267
23		265	281	283	281	278	269	273	272	269	261	251	241	239	243	248	258	263	276	268	263	261	267	268	272	265
24	Q	275	272	272	276	279	277	280	283	278	268	255	244	242	245	252	258	268	263	260	262	266	265	265	267	266
25	Q	268	267	268	271	271	273	276	280	273	260	251	237	233	236	245	255	262	262	260	261	260	263	271	273	262
26		274	273	278	281	282	286	288	287	276	266	252	237	234	236	241	254	255	257	261	261	261	272	271	259	264
27		275	278	280	278	281	284	283	281	274	262	245	232	231	236	251	261	267	267	274	284	266	266	262	268	266
28		274	274	274	276	279	280	280	273	268	251	244	239	237	242	247	257	265	278	272	276	269	274	269	270	265
29		270	272	269	268	277	282	285	280	270	254	237	228	231	230	241	247	250	248	253	258	268	267	266	267	259
30	D	268	270	265	264	264	269	269	270	263	250	230	234	229	233	212	231	243	328	318	307	315	364	370	320	274
31	D	295	293	286	314	269	263	268	256	249	252	232	221	235	236	237	249	248	262	273	266	279	280	280	276	263
All Quiet		275	276	278	283	283	284	285	280	270	257	242	233	234	239	247	256	262	266	268	267	268	275	276	271	266
Dist.		272	273	275	279	280	281	284	284	275	264	253	241	237	243	250	257	261	261	261	262	264	265	268	270	265
		284	282	273	278	274	276	273	270	263	254	238	234	236	238	242	251	257	280	284	278	281	299	301	285	260

Nurmajärvi Finland

September 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-18	-22	-29	-19	-16	-22	-29	-39	-45	-44	-38	-25	-12	-8	3	-4	-6	-5	-8	-7	-8	-10	-22	-16	-19
2		-14	-12	-11	-11	-15	-24	-26	-28	-40	-46	-42	-27	-15	-5	-2	-8	-13	-8	-8	-3	-1	-1	-7	-7	-16
3	Q	-10	-12	-12	-10	-8	-13	-21	-33	-41	-42	-33	-19	-11	-9	-9	-9	-3	-2	-4	-1	0	-2	-4	-4	-13
4	Q	-4	-4	-4	-5	-7	-10	-14	-20	-28	-35	-35	-27	-16	-9	-1	0	1	2	6	8	7	5	8	4	-7
5		3	5	5	4	3	0	-5	-20	-35	-41	-32	-34	-23	-27	-7	19	-4	0	-12	-17	-6	-3	-5	-2	-10
6		-6	-6	-1	0	-1	-9	-27	-34	-50	-56	-38	-5	-2	-2	-19	-14	-12	-17	-10	-5	-2	1	-12	-7	-14
7		-14	-14	-8	-7	-12	-32	-33	-38	-35	-43	-47	-35	-29	-17	-12	-20	-12	-2	-3	0	0	-2	-3	-9	-18
8		-7	-5	-7	-6	-18	-19	-22	-36	-42	-39	-36	-31	-20	-10	-6	-12	-10	-7	-7	-4	-2	-2	-4	-5	-15
9		-8	-10	-11	-12	-11	-15	-23	-28	-31	-29	-28	-24	-16	-13	-14	-10	-7	-6	0	-1	2	0	-2	-1	-12
10	Q	0	-2	-1	-3	-4	-7	-12	-21	-32	-41	-46	-36	-26	-20	-16	-13	-10	-7	-6	-4	-4	-5	-5	-2	-14
11	Q	-4	-4	-4	-3	0	-1	-7	-17	-28	-31	-27	-23	-11	-7	-6	-8	-7	-2	-1	0	-5	-7	-3	-3	-9
12	Q	-7	-8	-9	-6	-7	-11	-18	-27	-37	-41	-36	-26	-17	-13	-11	-8	-6	0	-1	-1	-1	-4	-1	-4	-13
13		-5	-8	-10	-12	-14	-14	-14	-17	-25	-29	-25	-17	-13	-10	-8	-5	-2	1	3	5	32	21	28	13	-5
14	D	-3	0	-11	-8	-5	-47	-41	-23	-22	-33	-47	-39	-31	-12	12	-10	2	10	6	13	-41	-51	-28	-15	-18
15		-38	-61	-25	-20	-19	-24	-33	-43	-48	-45	-39	-37	-30	-6	-6	-8	-5	3	-4	-3	-8	-11	-12	-22	-23
16	D	-11	-5	-6	-7	-12	-15	-26	-31	-37	-49	-32	-21	-9	-17	-9	0	-1	7	2	20	-2	-19	-26	-3	-13
17	D	-7	-68	-50	-17	-12	-14	-12	-16	-34	-41	-26	-31	-21	-4	1	-9	-13	-9	-5	-10	-5	-3	14	-14	-17
18		-27	-17	-25	-26	4	-3	-9	-17	-29	-33	-46	-34	-30	-10	-14	-10	-8	-5	-3	-1	-1	-2	-3	-4	-15
19		-6	-7	-8	-8	-8	-9	-16	-24	-33	-38	-39	-32	-19	-12	-12	-11	-3	5	-2	-5	-9	-8	-7	-19	-14
20		-24	-7	-3	-2	1	2	-5	-22	-71	-49	-48	-28	-23	-12	-11	-18	-6	-6	-4	-4	-4	-3	-1	4	-14
21		-5	-12	-1	0	-12	-12	-22	-34	-46	-42	-31	-22	-14	-8	-5	-1	-5	2	0	1	-2	-3	-2	-4	-12
22	D	-6	-5	-7	-9	-10	-12	-15	-19	-25	-30	-26	-9	-10	-5	-16	-22	-19	-3	-24	-24	-45	-14	-24	-14	-16
23		-29	-15	-30	-5	-1	-38	-17	-21	-30	-33	-28	-30	-9	-7	-3	-12	-10	-6	-6	-6	-2	-10	-9	-14	-15
24		-13	-10	-20	-12	-12	-16	-23	-30	-34	-34	-32	-23	-12	-5	-5	-7	-7	-2	-9	-5	-2	-2	-6	-14	-14
25		-6	-4	-6	-6	-10	-11	-14	-20	-26	-25	-19	-22	-23	-25	-18	-12	-8	-1	-3	-5	-3	-6	-4	-3	-12
26		-5	-3	-4	-6	-9	-15	-21	-25	-30	-30	-24	-18	-11	-8	-5	-4	-1	4	2	1	-6	-2	6	0	-9
27		0	-3	-3	-2	-5	-6	-13	-18	-23	-23	-14	-13	-14	-7	-11	-6	5	-3	-15	-7	-1	-1	-1	-8	-5
28		-2	-3	-3	-7	3	-3	-4	-14	-26	-21	-21	-13	-8	-6	-5	-4	-2	2	2	3	5	2	7	2	-5
29		-3	-6	-4	-1	-1	-5	-10	-19	-23	-23	-21	-13	-10	-5	-5	-3	0	3	-5	-2	0	2	7	1	-6
30		0	-1	-2	-2	-1	0	-5	-15	-26	-27	-20	-13	-6	-4	0	0	1	3	2	5	-1	-1	0	-1	-5
All		-9	-11	-10	-8	-7	-13	-18	-25	-34	-36	-32	-24	-16	-10	-7	-8	-6	-2	-4	-2	-4	-5	-4	-5	-13
Quiet		-5	-6	-6	-5	-5	-8	-14	-23	-33	-38	-35	-26	-16	-12	-9	-8	-5	-2	-1	0	-1	-3	-1	-2	-11
Dist.		-5	-17	-15	-8	-8	-19	-24	-25	-34	-42	-34	-21	-15	-8	-6	-11	-9	-2	-6	-1	-19	-17	-15	-10	-16

September 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		275	285	280	282	287	289	290	289	282	264	249	245	242	246	251	250	266	270	270	266	266	262	279	280	271
2		275	272	288	291	290	291	288	283	271	260	254	248	246	247	252	260	264	264	265	269	275	276	276	273	270
3	Q	275	274	277	280	282	285	284	280	275	265	251	239	235	240	248	253	259	264	266	263	265	268	269	269	265
4	Q	269	270	273	278	282	285	285	282	276	264	249	240	235	241	249	257	258	257	258	260	263	272	268	266	264
5		267	269	275	280	285	290	292	289	276	260	245	238	232	240	250	251	274	274	273	272	261	263	263	266	266
6	D	255	271	277	282	287	294	286	277	272	251	239	230	240	241	244	250	266	314	273	267	267	265	239	260	264
7		275	286	276	283	287	283	275	272	271	256	248	243	246	246	249	255	265	266	267	270	270	275	276	280	276
8		256	273	285	282	276	277	277	279	280	267	253	248	245	260	259	261	262	265	265	266	267	269	267	268	267
9		270	271	274	277	279	281	284	281	275	264	252	245	243	245	254	261	261	263	262	264	264	265	266	262	248
10	Q	268	270	274	275	276	279	279	278	275	263	251	239	235	245	256	261	263	265	266	266	266	266	266	265	266
11	Q	267	268	270	271	272	276	279	275	264	251	247	242	245	254	259	261	261	260	260	261	270	274	272	264	
12	Q	273	274	276	275	276	281	284	285	279	264	249	242	243	252	261	267	268	267	268	268	268	268	269	270	268
13		272	274	278	280	281	282	284	282	274	261	252	243	243	251	258	263	265	265	267	266	259	272	253	271	266
14	D	267	278	268	273	273	274	264	251	258	245	240	235	227	245	240	247	278	253	333	292	288	312	290	283	267
15		303	282	294	290	291	290	290	282	271	256	244	244	247	253	268	274	281	278	269	271	270	265	262	262	272
16	D	269	277	274	273	277	276	274	274	259	241	233	237	256	244	260	272	268	283	272	274	282	288	264	279	267
17	D	296	281	267	283	277	263	261	271	269	263	248	243	245	275	270	269	289	264	266	274	272	298	284	302	272
18		307	303	293	253	262	280	294	294	280	257	248	235	239	242	255	261	262	265	268	268	269	271	271	272	269
19	D	272	273	274	275	278	283	288	287	276	264	253	247	247	252	257	261	266	270	271	272	275	279	270	308	271
20		279	262	283	284	284	283	282	275	257	226	230	223	231	234	249	263	267	269	268	268	269	270	271	271	262
21		281	271	280	289	294	292	286	281	272	261	251	242	238	243	251	253	259	260	263	265	264	273	274	273	267
22	D	273	273	276	279	279	281	282	276	266	250	246	228	226	239	273	259	266	297	299	295	258	295	288	305	271
23		283	298	258	284	273	273	284	282	277	263	251	245	245	257	263	264	262	270	268	265	273	278	276	287	270
24		275	291	291	286	283	283	283	280	270	253	247	241	248	253	258	263	267	273	265	270	266	263	264	272	269
25		272	275	275	276	279	279	277	275	272	264	251	247	247	248	255	258	259	267	265	273	274	275	270	272	267
26		272	271	274	275	278	279	276	272	267	262	253	249	248	252	257	260	261	262	262	277	272	268	270	271	266
27		275	279	279	277	277	278	280	276	268	259	244	240	240	244	247	258	259	260	256	267	267	271	271	272	265
28		274	273	274	271	272	274	275	267	264	255	251	250	249	251	256	258	259	261	262	265	267	279	277	267	265
29		279	278	271	271	274	278	279	276	270	258	252	252	250	247	254	258	259	263	267	273	272	270	265	270	266
30		265	268	273	274	276	278	282	281	276	269	259	252	248	250	255	259	260	261	261	274	274	269	270	272	267
All Quiet		275	276	277	278	279	281	281	278	272	258	248	242	242	248	255	260	265	268	269	270	269	275	270	274	267
Dist.		270	271	274	276	278	281	282	281	276	264	250	241	238	245	254	259	262	263	264	264	265	269	269	269	265
		272	276	272	278	279	278	273	270	265	250	241	235	239	249	258	259	273	282	288	281	273	292	273	286	265

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October 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-2	-2	-1	-2	-1	-3	-10	-19	-28	-34	-25	-16	-10	-2	0	2	5	3	5	2	9	10	5	7	-4
2		5	-1	-2	5	7	5	10	-18	-28	-33	-36	-45	-33	-13	-11	-20	-21	-12	-18	-9	-9	-5	-5	3	-13
3		0	-1	-1	0	-1	-6	-14	-21	-31	-36	-30	-29	-13	-14	-10	-29	-29	-33	-39	-29	-19	-2	-22	-38	-19
4		-18	-18	-15	-8	-17	-10	-8	-14	-27	-26	-28	-28	-22	-13	-23	-26	-21	-21	-20	-17	-20	-19	-11	-19	-19
5		-7	-12	-12	-10	-5	-9	-10	-11	-18	-17	-21	-20	-16	-11	-8	-8	-6	-7	-8	-3	-5	-9	-13	-11	-11
6		-11	-8	-8	-5	-3	3	0	-12	-21	-32	-32	-29	-24	-17	-13	-9	-7	-7	-6	-6	-8	-5	-6	-11	-11
7		-6	-5	-5	-5	-1	0	-3	-15	-24	-30	-31	-29	-24	-16	-9	-4	-3	-1	1	2	2	2	2	3	-8
8		4	3	3	5	6	8	3	-11	-20	-24	-22	-17	-13	-8	3	-5	-8	2	4	4	0	0	-6	-4	-4
9		3	-1	-2	-6	-4	-4	-7	-13	-20	-31	-26	-20	-12	-11	-9	-4	-3	-3	-7	-4	-2	-2	-1	-4	-8
10		-8	-16	0	-1	-6	-6	-9	-15	-18	-20	-24	-19	-7	-5	-9	-4	-3	-3	-5	-6	-11	-9	2	-9	-9
11		-12	-21	-17	-25	-18	-9	-12	-11	-22	-26	-24	-19	-22	-24	-23	-10	-9	-3	-4	-6	-6	-8	-13	-8	-15
12		-5	-11	-16	-14	-7	-7	-7	-13	-31	-27	-24	-23	-16	-9	-5	-8	-8	-5	-3	-2	-1	5	-14	12	-10
13		-15	-34	-45	4	5	-38	-33	-31	-38	-31	-38	-15	-16	-21	-12	-37	-36	-40	-30	-16	-26	-21	-25	-23	-26
14		-17	-18	-13	-16	-3	-13	-43	-44	-40	-41	-39	-37	-32	-22	-25	-14	-10	-31	-18	5	-13	-15	-17	-18	-22
15		-14	-15	-16	-16	-8	-6	-10	-20	-25	-38	-43	-34	-25	-22	-18	-16	-12	-9	-10	-14	2	3	-5	-11	-16
16		-13	-18	-9	-4	-1	-2	-6	-17	-26	-33	-34	-27	-19	-12	-10	-9	-7	-5	-4	-3	-4	-4	-4	-5	-11
17		-5	-5	-4	-1	2	2	-3	-11	-20	-29	-31	-25	-16	-8	-5	-3	-2	-1	-1	-1	-1	-2	-2	-1	-7
18		-1	-1	-1	1	4	6	2	-9	-22	-31	-32	-27	-18	-6	-1	-6	-5	1	-5	-9	-3	-1	3	0	-7
19		-2	-2	-4	-2	-1	-2	-5	-11	-22	-30	-30	-25	-16	-9	-1	-8	-4	-2	4	4	2	2	6	5	-6
20		2	5	5	7	-5	-14	-7	-8	-18	-23	-26	-23	-16	-7	-18	-24	-27	-14	-12	-11	-15	-11	-13	-23	-12
21		-9	-10	-10	-11	-4	0	-12	-26	-23	-27	-32	-28	-22	-16	-12	-10	-8	-7	-8	-6	-1	-11	-4	-6	-13
22		-5	-8	-7	-6	-6	-6	-8	-18	-29	-31	-29	-26	-16	-11	-13	-9	-9	-3	-6	-4	-2	-3	-4	-2	-11
23		-3	-3	-3	-1	1	0	-6	-15	-23	-26	-20	-13	-7	-3	-4	-3	-1	-3	0	1	0	-2	-1	-3	-6
24		-4	-1	-1	0	1	-1	-12	-25	-34	-30	-21	-16	-8	-2	-1	3	1	1	-24	-29	-14	-15	-10	-13	-10
25		-13	-6	-13	9	3	2	-2	-21	-31	-36	-31	-22	-16	-14	-10	-7	-9	-16	-8	-9	-4	0	-7	-11	-11
26		-7	-10	-9	-9	-8	-9	-13	-23	-32	-35	-29	-20	-10	-6	-5	-5	-4	-4	-3	-3	-3	-3	-3	-4	-11
27		-4	-4	-4	-1	0	-2	-9	-20	-28	-29	-24	-15	0	2	2	3	-3	-6	-2	-1	3	0	-1	-2	-6
28		-3	-4	-3	-4	-2	-3	-8	-15	-21	-21	-16	-9	-3	-1	-1	0	2	-3	3	4	3	4	1	-4	-4
29		-1	-3	-2	0	2	1	-5	-12	-21	-24	-24	-17	-14	-9	-9	-14	-16	-14	-13	-22	-14	-10	-10	-12	-11
30		-10	-3	4	4	-10	-9	-15	-29	-40	-40	-40	-31	-25	-20	-20	-11	-14	-10	-7	-7	-21	-22	-28	-16	-18
31		-15	-16	-17	-18	-11	-8	-9	-17	-26	-30	-37	-35	-24	-22	-31	-24	-27	-19	-15	-14	6	-7	-15	-20	-19
All		-6	-8	-7	-4	-3	-4	-9	-17	-26	-30	-29	-24	-17	-12	-10	-10	-10	-9	-8	-7	-6	-5	-7	-7	-11
Quiet		-5	-5	-5	-4	-2	-2	-7	-16	-24	-28	-25	-19	-12	-7	-5	-3	-2	-1	0	1	0	0	0	0	-7
Dist.		-15	-18	-17	-7	-7	-15	-22	-27	-34	-34	-36	-29	-25	-22	-20	-22	-22	-24	-18	-11	-14	-17	-21	-17	-21

October 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		272	272	271	272	275	278	279	276	270	263	253	246	247	250	256	258	257	259	260	262	269	270	268	268	265	
2		271	272	268	272	269	269	269	270	268	254	239	223	233	237	255	263	265	269	289	270	274	274	268	266	263	
3		265	270	270	271	272	272	267	260	259	244	235	229	237	240	261	244	266	289	303	299	286	319	297	280	268	
4		312	292	279	282	269	272	281	281	279	270	257	252	249	248	256	260	265	271	286	304	286	286	273	252	273	
5		275	284	283	277	278	279	285	284	282	274	265	258	255	258	263	265	265	266	266	275	278	278	294	280	274	
6		276	276	278	275	273	273	279	282	282	273	260	249	248	252	258	265	266	265	266	272	280	274	273	270	266	
7		274	277	275	273	273	276	278	279	274	264	258	253	248	249	256	260	261	261	263	265	266	268	270	270	266	
8		271	271	271	271	270	277	277	277	274	264	251	241	240	243	248	255	257	259	263	265	267	285	289	287	265	
9		269	281	283	276	273	276	277	275	267	264	257	249	248	251	259	260	260	257	260	266	269	271	273	282	267	
10		293	289	278	292	280	276	280	280	273	265	260	257	252	248	257	261	266	264	269	276	286	283	285	277	273	
11		275	268	262	265	267	269	278	278	275	277	265	250	246	240	254	281	261	274	270	277	282	288	298	265	269	
12		272	283	274	282	271	273	278	281	284	281	269	261	256	257	259	258	259	261	266	270	269	275	285	304	272	
13		304	287	230	264	272	257	232	249	254	252	247	230	226	227	257	273	280	286	317	332	292	266	273	284	267	
14		265	240	260	270	278	274	263	263	262	257	251	234	246	248	266	300	334	276	277	285	293	288	263	259	269	
15		259	269	269	257	269	279	284	286	275	268	257	245	245	263	262	266	270	285	289	285	283	284	275	277	271	
16		275	255	262	276	275	278	284	289	286	277	266	253	252	259	265	265	266	267	269	270	272	272	273	272	270	
17		271	272	270	270	271	277	282	288	285	273	263	252	250	255	262	265	265	267	268	269	271	272	271	270	269	
18		270	269	269	269	271	276	283	288	285	273	259	248	246	248	255	256	262	261	262	274	311	288	283	277	270	
19		275	272	274	273	274	274	279	282	279	269	260	250	243	249	256	251	260	259	263	267	270	274	286	279	267	
20		274	273	272	274	269	272	268	276	280	272	261	249	241	238	235	237	253	264	270	272	274	278	279	269	265	
21		267	282	280	284	260	262	279	281	278	266	259	255	257	261	266	267	268	268	270	270	276	278	273	275	270	
22		256	273	275	277	275	276	282	283	279	266	252	250	249	255	260	263	263	283	269	276	272	270	270	267	268	
23		267	268	269	269	270	275	281	281	272	261	252	248	251	254	258	260	261	263	262	266	268	270	269	277	268	
24		277	270	268	270	273	275	280	281	276	265	252	248	246	248	251	250	250	257	304	292	279	289	286	274	269	
25		269	273	281	269	280	277	276	270	267	260	246	243	243	253	261	264	263	281	271	270	274	274	269	270	267	
26		272	271	271	275	276	279	278	276	269	261	252	250	254	260	263	264	265	265	267	269	270	272	271	272	268	
27		271	272	273	274	275	277	282	283	275	264	257	255	254	257	259	257	263	273	261	264	271	276	276	274	268	
28		273	271	272	271	274	277	279	276	271	262	254	253	256	261	262	262	262	262	264	264	266	281	279	274	268	
29		269	270	270	272	274	276	279	278	272	259	248	239	228	240	247	245	255	261	269	312	301	280	274	275	266	
30		288	277	290	282	265	276	278	274	268	264	258	252	246	246	260	267	263	287	270	269	272	296	351	292	290	276
31		275	276	275	275	280	278	279	280	279	269	260	252	245	251	264	316	273	272	274	285	273	291	308	298	276	
All		274	273	272	273	273	274	277	278	274	265	255	248	246	250	258	263	266	268	273	277	278	282	279	275	269	
Quiet		271	272	272	271	273	277	280	280	274	264	256	251	252	256	260	262	263	264	265	267	268	272	272	272	267	
Dist.		289	274	267	274	273	271	267	269	268	262	255	244	242	247	262	282	288	275	285	296	288	300	282	277	277	

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November 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-20	-14	-9	-8	-6	-6	-12	-18	-24	-27	-25	-24	-15	-15	-20	-8	-8	-7	-6	-5	-6	-6	-3	-7	-12
2	Q	-5	-1	-8	-6	-5	-7	-10	-19	-23	-27	-26	-19	-12	-11	-12	-16	-29	-24	-11	-9	-6	-3	-5	-3	-12
3		-5	-7	-5	-4	-3	-2	-3	-12	-18	-20	-24	-26	-12	-2	0	1	3	-9	-3	-16	-59	-82	-19	-3	-14
4		-9	-10	-10	-7	-5	-3	-3	-16	-24	-30	-27	-22	-15	-9	-8	-7	-12	-21	-14	1	-1	-2	-2	-4	-11
5	Q	-1	-10	-9	-8	-5	-7	-12	-19	-27	-31	-30	-25	-17	-11	-8	-6	-5	-4	-4	-4	-3	-5	-6	-6	-11
6	Q	-6	-5	-5	-5	-3	-2	-5	-12	-21	-24	-25	-18	-11	-6	-4	-3	-2	-1	-1	-4	-6	-7	-6	-6	-8
7	D	-7	-6	-3	7	5	7	7	2	-5	-9	-4	22	31	19	16	17	22	44	10	16	-139	-267	-451	-1097	-76
8	D	-1105	-124	-447	-605	-1115	-799	-434	-66	-81	-20	88	-20	-50	-75	-78	-73	-67	-58	-57	-106	-172	-216	-116	-165	-248
9	D	-165	-128	-75	-96	-73	-69	-63	-48	-64	-73	-59	-9	51	149	251	212	120	33	-48	-517	-1234	-294	-236	-155	-108
10	D	-176	-198	-69	-116	-300	-326	-267	-376	-288	31	211	195	75	114	7	-70	-100	-45	-100	-92	-140	-112	-68	-75	-95
11		-79	-90	-61	-50	-53	-89	-65	-74	-61	-51	-50	-50	-44	-40	-42	-40	-42	-21	-29	-37	-33	-21	-30	-32	-49
12	D	-74	-75	-80	-24	-22	-31	-20	-17	-33	-65	-61	-51	-40	-40	-28	-37	-36	-29	-14	-46	-64	-73	-48	-44	-44
13		-44	-51	-47	-34	-29	-28	-33	-41	-43	-45	-49	-42	-31	-29	-26	-30	-35	-34	-31	-27	-28	-21	-29	-31	-35
14		-38	-31	-50	-35	-28	-25	-25	-31	-43	-46	-44	-42	-40	-39	-36	-28	-25	-25	-24	-28	-28	-27	-28	-29	-33
15	Q	-30	-29	-27	-24	-24	-24	-25	-30	-39	-42	-40	-36	-31	-25	-23	-23	-22	-21	-21	-22	-22	-22	-23	-24	-27
16		-23	-22	-19	-15	-12	-10	-10	-24	-36	-45	-40	-36	-29	-26	-26	-30	-22	-22	-26	-29	-21	-29	-18	-24	-25
17		-27	-28	-27	-23	-22	-22	-22	-43	-44	-40	-40	-36	-29	-29	-27	-25	-23	-21	-22	-21	-23	-22	-23	-23	-28
18	Q	-23	-23	-21	-20	-19	-20	-21	-25	-29	-33	-30	-24	-19	-19	-20	-20	-19	-16	-16	-17	-17	-18	-19	-20	-21
19		-18	-17	-16	-17	-19	-20	-18	-18	-19	-17	-17	-16	-14	-11	-9	-7	-5	-5	-4	-10	-11	-12	-17	-13	-14
20		-14	-22	-22	-22	-20	-6	-16	-17	-24	-26	-41	-45	-40	-19	-33	-27	-14	-17	-26	-17	-28	-28	-24	-11	-23
21		-21	-25	-28	-23	-18	-20	-22	-24	-29	-47	-51	-38	-33	-35	-41	-13	-32	-20	-13	-21	-11	-17	-25	-25	-26
22		-18	-22	-23	-22	-19	-23	-27	-19	-40	-30	-23	-22	-21	-20	-22	-20	-21	-22	-18	-23	-21	-21	-21	-24	-23
23		-10	-20	-21	-20	-20	-19	-20	-23	-26	-28	-26	-21	-17	-12	-12	-15	-15	-14	-17	-16	-12	-16	-22	-6	-18
24		-9	-20	-14	-14	-9	-7	-11	-14	-16	-19	-28	-32	-23	-26	-30	-25	-23	-26	-25	-22	-23	-20	-18	-25	-20
25		-27	-36	-50	-40	-21	-18	-23	-28	-32	-28	-36	-39	-36	-39	-39	-40	-32	-26	-17	-28	-32	-27	-36	-19	-31
26		-28	-24	-24	-24	-20	-14	-25	-24	-33	-47	-41	-34	-23	-26	-26	-31	-23	-35	-34	-32	-33	-27	-33	-28	-29
27		-24	-25	-24	-20	-16	-13	-20	-24	-28	-31	-26	-27	-28	-31	-37	-37	-38	-36	-51	-48	-45	-50	-42	-54	-32
28		-35	-19	-17	-15	-6	-17	-25	-28	-24	-27	-33	-32	-38	-35	-32	-39	-39	-28	-19	-17	-22	-25	-26	-23	-26
29		-18	-27	-20	-9	-8	-3	-8	-13	-17	-18	-20	-17	-26	-22	-20	-14	-20	-26	-19	-19	-17	-18	-8	-14	-17
30		-25	-28	-29	-23	-25	-8	-9	-7	-15	-21	-27	-26	-25	-17	-17	-21	-21	-16	-22	5	-29	-24	-37	-23	-20
All Quiet		-69	-38	-42	-44	-64	-54	-42	-37	-40	-31	-22	-20	-19	-13	-13	-16	-19	-20	-23	-40	-76	-50	-48	-67	-38
Dist.		-305	-106	-135	-167	-301	-244	-155	-101	-94	-27	35	27	18	13	34	10	-12	-21	-42	-149	-350	-192	-184	-307	-114

November 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		268	265	273	275	275	276	279	283	281	275	265	262	259	269	270	268	269	270	270	271	272	275	266	271	270
2	Q	269	272	277	275	275	277	281	286	278	273	261	253	248	253	256	251	255	270	277	281	280	277	277	279	270
3		281	279	276	276	275	276	279	283	279	265	255	244	251	254	257	261	262	262	288	287	287	343	308	278	275
4		274	275	277	277	269	274	280	281	279	273	262	256	255	257	260	259	261	264	268	291	284	274	277	288	271
5	Q	275	281	280	278	275	277	279	285	282	274	266	259	259	263	266	268	269	269	271	271	273	275	274	272	272
6	Q	272	271	271	272	272	273	275	279	276	269	263	260	258	261	264	267	268	269	269	272	275	274	273	273	270
7	D	274	274	274	280	279	272	275	278	277	270	260	243	238	243	244	253	233	290	271	251	264	345	362	404	277
8	D	462	431	409	334	286	355	388	350	313	358	350	310	312	304	304	298	300	297	307	347	356	310	329	383	344
9	D	322	247	237	254	206	277	284	307	292	295	301	302	299	256	363	290	256	323	292	344	356	326	305	334	295
10	D	281	308	339	342	299	187	231	332	331	400	397	309	290	354	324	348	339	347	347	330	303	283	294	284	317
11		272	258	279	275	274	251	253	264	268	277	280	275	289	282	283	293	283	291	284	288	285	278	281	290	277
12	D	293	294	280	290	276	286	289	284	278	283	283	279	275	277	273	266	265	281	305	315	343	360	311	296	291
13		289	284	284	286	289	284	284	285	281	276	271	271	271	267	272	273	289	279	283	285	288	303	292	286	282
14		283	285	276	278	278	287	288	290	292	284	276	267	261	269	275	277	277	279	280	282	288	284	285	281	280
15	Q	279	279	277	278	279	281	283	288	287	279	274	270	268	268	273	275	276	277	278	280	280	280	279	278	278
16		278	276	274	274	276	278	279	281	280	276	263	267	262	261	257	265	272	277	293	292	287	297	293	288	277
17		283	279	280	278	278	281	283	288	284	277	264	263	265	268	271	275	277	278	280	281	282	283	282	278	277
18	Q	284	282	281	281	278	277	279	280	279	275	270	268	260	270	272	273	276	276	277	277	278	278	278	278	276
19		276	275	275	277	278	277	277	277	274	269	266	266	265	266	267	266	267	266	267	272	278	279	285	291	273
20		305	292	285	287	282	277	269	274	274	266	261	256	246	234	234	268	272	265	269	342	309	296	295	295	277
21		285	283	276	272	275	277	280	283	279	272	287	263	267	287	257	310	275	283	290	282	288	300	283	270	280
22		284	282	281	283	281	281	277	278	274	272	271	266	266	270	273	273	275	276	280	281	284	283	288	297	278
23		291	297	287	285	280	281	283	284	285	281	274	266	261	264	266	272	273	271	285	284	282	286	283	283	279
24		299	285	284	276	275	276	278	280	277	273	269	264	255	254	265	265	271	274	277	284	287	295	290	297	277
25		296	300	289	272	274	273	268	270	276	273	270	269	268	268	306	270	274	282	273	288	298	290	267	294	280
26		284	277	281	277	272	259	251	259	270	272	264	267	267	268	273	286	278	286	299	285	295	317	300	293	278
27		280	280	276	278	279	277	268	271	276	284	275	268	265	265	268	263	282	319	300	308	310	327	315	298	285
28		273	291	282	279	278	266	267	275	271	264	255	247	245	243	249	258	265	288	283	294	300	318	312	298	275
29		285	288	287	287	288	280	277	275	276	277	271	256	260	264	267	264	274	279	327	338	283	295	306	280	280
30		292	304	275	279	268	267	276	288	280	276	273	262	263	264	260	270	269	272	298	330	304	292	279	282	280
All Quiet		289	288	284	282	276	275	276	286	284	282	277	267	265	267	273	274	273	282	286	293	293	297	292	294	281
Dist.		276	277	277	277	276	277	279	283	280	277	267	262	260	263	266	267	269	272	275	276	277	277	276	276	273
		326	318	308	300	269	275	277	320	312	321	318	289	283	287	301	291	279	308	305	317	325	325	320	340	305

Nurmijärvi Finland

December 2004 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-16	-18	-21	-23	-16	-13	-13	-26	-49	-33	-36	-33	-28	-21	-21	-19	-18	-16	-20	-16	-17	-6	-19	-15	-21
2	Q	-23	-21	-19	-18	-15	-14	-15	-16	-21	-27	-30	-28	-22	-18	-17	-19	-14	-12	-14	-15	-14	-14	-13	-15	-18
3	Q	-15	-17	-16	-13	-7	-7	-10	-14	-18	-21	-19	-15	-13	-12	-12	-12	-13	-11	-10	-9	-9	-12	-14	-15	-13
4	Q	-14	-14	-13	-12	-11	-11	-11	-15	-18	-20	-18	-16	-13	-12	-10	-8	-8	-8	-9	-10	-9	-11	-12	-13	-12
5		-13	-13	-13	-12	-10	-3	0	3	27	16	12	10	15	14	14	11	7	9	8	0	-1	-5	-5	-5	3
6	D	-1	-11	-9	-7	-5	-15	-5	-17	-34	-35	-34	-35	-29	-35	-25	-38	-54	-64	-72	-58	-42	-38	-53	-24	-31
7		-28	-39	-38	-28	-25	-36	-27	-31	-32	-33	-37	-37	-30	-38	-29	-32	-37	-31	-17	-36	-26	-6	-3	-28	-30
8		-24	-20	-22	-19	-11	-8	-20	-20	-20	-25	-26	-21	-22	-23	-31	-27	-33	-28	-25	-19	-24	-11	-34	-30	-23
9		-30	-23	-15	-13	-13	-13	-14	-16	-23	-25	-31	-36	-23	-26	-22	-21	-27	-33	-30	-30	-25	-20	-19	-24	-23
10		-23	-16	-14	-12	-14	-10	-9	-7	-13	-22	-32	-24	-25	-32	-44	-49	-41	-41	-41	-42	-40	-34	-29	-25	-27
11		-24	-19	-16	-16	-12	-10	-12	-21	-16	-20	-25	-22	-33	-39	-26	-10	-25	-30	-37	-73	-80	-30	-25	-27	-27
12	D	-36	-32	-66	-24	-1	-11	-33	-16	-15	-21	-46	-36	-26	-34	-37	-55	-56	-22	-14	-16	-18	-18	-15	-22	-28
13		-40	-14	-11	-15	-16	-30	-28	-37	-31	-28	-25	-25	-22	-22	-24	-24	-17	-16	-14	-15	-15	-15	-15	-16	-22
14		-15	-16	-16	-14	-16	-15	-13	-15	-13	-16	-22	-29	-21	-25	-17	-18	-17	-13	-9	-16	-36	-31	-24	-24	-19
15		-23	-17	-20	-20	-20	-14	-11	-16	-17	-20	-21	-19	-15	-13	-15	-15	-21	-16	-17	-16	-27	-29	-31	-22	-19
16		-15	-18	-16	-21	-17	-13	-10	-18	-14	-13	-13	-11	-11	-21	-13	-7	-13	-13	-8	-17	-27	-41	-31	-21	-17
17	D	-17	-24	-25	-19	-17	-9	-9	-15	-22	-16	-19	-19	-14	-14	-21	1	-32	-25	-24	-15	4	-11	-27	-17	-17
18		-8	-14	-32	-15	-12	-12	-12	-16	-17	-19	-19	-20	-13	-25	-33	-16	-15	-13	-14	-10	-16	-15	-13	-13	-16
19	Q	-18	-18	-17	-14	-10	-10	-13	-15	-13	-14	-12	-13	-11	-9	-9	-10	-11	-12	-14	-12	-14	-13	-14	-13	-13
20		-12	-13	-14	-8	-6	-7	-7	-8	-11	-11	-10	-11	-9	-9	-7	-6	-7	-10	-10	-7	-8	-7	-10	-14	-9
21		-14	-13	-7	-11	-9	-5	-2	13	5	-1	-29	-29	-17	-11	-10	-23	-31	-21	-3	-3	-18	-18	-23	-16	-12
22	D	-19	-17	-14	-5	0	-13	12	-2	-8	-47	-26	-18	-14	-19	-23	-14	-22	-21	-16	-21	-21	-20	-24	-23	-16
23		-15	-21	-15	-14	-16	-12	-14	-14	-17	-22	-29	-24	-20	-16	-16	-23	-15	-13	-15	-17	-21	-32	-19	-21	-18
24	Q	-19	-17	-16	-15	-13	-12	-12	-13	-20	-23	-23	-17	-13	-10	-10	-20	-24	-18	-16	-19	-12	-12	-12	-15	-16
25		-15	-6	-7	-2	0	-18	9	-3	-10	-13	-20	-18	-16	-13	-10	-7	-10	-9	-14	-20	-10	-15	-18	-20	-11
26		-17	-19	-21	-11	-3	-5	-6	-7	-9	-15	-21	-25	-15	-7	-5	-6	-14	-16	-17	-14	-14	-18	-16	-15	-13
27		-14	-14	-11	-11	-10	-8	-8	-3	-6	-8	-9	-8	-6	-2	0	-1	-4	-8	-6	-14	-25	-32	-20	-26	-11
28		-21	-12	-17	-9	-14	-12	-15	-21	-29	-29	-30	-32	-27	-21	-18	-32	-32	-49	-44	-58	-38	-62	-52	-76	-31
29		-27	-27	-27	-26	-23	-20	-13	-12	-12	-24	-38	-34	-22	-13	-29	-21	-26	-23	-20	-17	-21	-23	-13	-30	-24
30	D	-26	-22	-26	-19	-18	-11	4	8	-8	-11	-17	-19	-19	-24	-12	-25	-26	-27	-26	-30	-26	-24	-15	-17	-18
31		-13	-18	-17	-12	-15	-10	-12	-20	-21	-18	-15	-16	-21	-12	-9	-11	-12	-16	-15	-15	-14	-17	-11	-18	-15
All		-20	-18	-19	-15	-12	-12	-10	-13	-16	-20	-23	-22	-18	-18	-18	-19	-20	-20	-19	-20	-22	-22	-20	-22	-18
Quiet		-18	-17	-16	-14	-11	-11	-12	-14	-18	-21	-20	-18	-14	-12	-12	-14	-14	-12	-12	-13	-11	-12	-13	-14	-14
Dist.		-20	-21	-28	-15	-8	-12	-6	-8	-17	-26	-28	-25	-20	-25	-22	-31	-31	-33	-31	-30	-24	-19	-24	-23	-22

December 2004 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		285	278	283	275	264	276	282	282	287	284	275	269	266	267	270	271	273	281	279	282	284	294	284	287	278
2	Q	284	278	277	276	278	279	280	280	283	278	272	265	264	266	269	273	274	276	280	289	286	280	278	278	277
3	Q	277	276	275	275	276	276	276	276	276	273	271	269	268	270	271	273	276	278	277	275	283	285	284	276	275
4	Q	275	275	276	276	277	278	278	278	275	271	269	265	265	270	272	273	274	275	276	277	281	281	279	278	277
5		277	276	276	275	274	274	273	272	262	258	255	253	255	257	259	259	265	265	266	271	271	271	280	275	265
6	D	273	276	274	276	281	270	259	272	286	255	264	267	251	255	301	262	284	307	360	331	300	299	285	276	282
7		288	289	278	272	274	276	271	277	278	268	267	266	263	277	268	272	304	286	335	315	285	289	279	278	281
8		280	270	267	273	272	276	274	270	266	271	268	268	268	270	290	278	281	283	295	277	282	313	300	287	279
9		274	263	278	278	277	277	278	278	276	268	262	266	262	276	270	272	276	278	308	298	293	283	284	278	278
10		268	264	275	277	273	275	277	275	274	268	267	261	253	251	263	274	288	306	298	312	315	303	290	280	279
11		275	277	274	275	276	274	274	279	273	268	267	270	270	290	321	263	272	291	355	340	328	361	331	296	292
12	D	302	302	282	259	270	271	274	272	266	269	273	272	260	258	253	313	326	265	271	278	279	281	281	280	277
13		300	315	288	245	270	287	293	294	276	274	273	274	274	277	277	279	276	278	278	279	280	280	279	278	280
14		276	277	276	276	274	277	276	274	273	269	270	265	264	266	272	273	274	275	280	282	294	287	287	287	276
15		289	290	288	282	278	279	280	281	279	274	271	271	270	271	270	267	262	285	273	278	293	304	292	288	280
16		276	276	284	284	271	279	281	281	278	273	270	266	259	270	269	252	259	277	282	278	314	326	286	273	278
17	D	278	285	274	277	276	265	269	270	279	269	262	267	266	266	264	282	316	287	276	284	288	297	291	275	278
18		256	295	276	280	286	278	276	275	273	271	271	269	271	268	292	270	276	278	282	286	286	284	288	289	278
19	Q	287	281	278	278	276	278	278	277	275	271	270	266	266	270	272	275	276	275	276	279	279	279	279	277	276
20		276	275	266	271	274	277	278	278	278	275	267	266	268	271	276	274	273	273	275	278	276	279	285	281	275
21		279	283	287	280	275	274	273	270	268	266	269	263	271	269	269	256	265	267	290	283	301	294	300	297	277
22	D	300	292	275	271	266	249	256	259	267	276	271	265	262	261	274	272	272	277	279	294	298	293	289	284	275
23		273	276	273	273	274	275	279	283	278	275	273	270	270	273	275	300	277	277	278	279	290	312	313	293	281
24	Q	277	272	273	272	275	277	279	281	281	277	271	266	266	269	271	284	272	272	280	280	281	279	276	279	276
25		280	289	275	272	268	250	255	274	278	278	272	264	267	270	269	269	267	266	261	280	284	291	298	283	273
26		279	280	275	276	273	277	281	283	279	277	273	265	273	272	269	283	283	275	283	298	297	284	279	279	279
27		267	271	276	274	278	276	277	274	271	268	265	266	268	273	272	270	272	272	274	298	307	306	295	277	277
28		286	288	288	278	280	278	278	278	276	276	267	252	258	269	267	281	299	299	311	323	349	335	344	321	291
29		318	332	320	292	267	284	275	278	269	273	274	264	264	255	256	257	255	269	272	277	283	291	341	327	283
30	D	311	298	294	288	266	279	277	271	272	275	272	276	267	283	263	269	306	290	275	297	301	288	282	268	282
31		272	280	280	277	274	273	275	275	274	275	275	271	270	272	270	273	274	273	277	278	280	284	292	274	276
All Quiet		282	283	279	275	274	274	275	277	275	272	269	266	265	268	273	273	279	287	287	288	292	295	292	285	278
Dist.		280	277	276	275	276	278	278	278	277	274	270	266	266	269	271	276	274	275	278	280	282	280	279	277	276
		293	290	280	274	272	267	267	269	274	269	268	269	261	265	271	280	301	285	292	293	292	285	277	277	276

11 Hourly Means minus Monthly Means

11.1 All Days

North Component X in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-11	-6	1	1	7	7	8	5	0	0	0	-2	0	3	2	0	6	-3	-5	1	-3	-3	-1	-6	14884
February	-2	0	0	1	4	3	-1	-2	-2	-4	-5	-5	-2	0	-2	1	10	10	0	-2	-4	1	1	0	14892
March	-5	3	3	3	5	5	0	-7	-16	-18	-15	-9	-1	5	8	7	8	9	9	4	7	1	0	-7	14890
May	0	3	3	6	5	3	-1	-9	-18	-25	-22	-16	-2	4	9	11	12	20	15	7	2	0	-4	-1	14893
April	5	5	2	2	1	-4	-12	-21	-25	-29	-25	-17	-4	1	7	13	17	18	20	16	12	9	5	4	14899
June	3	4	5	3	0	-7	-17	-23	-25	-25	-21	-14	-1	2	10	16	17	16	16	17	12	6	4	3	14902
July	-29	-11	-10	-5	-8	-19	-29	-32	-32	-29	-20	7	26	36	32	44	34	27	22	15	10	0	-15	-15	14892
August	2	3	4	5	3	0	-8	-18	-24	-24	-19	-12	-4	6	13	18	18	16	13	10	7	1	-6	-4	14888
September	3	2	2	5	5	-1	-5	-12	-22	-24	-20	-11	-4	2	5	5	7	11	9	10	9	8	8	7	14887
October	5	3	4	7	9	7	2	-6	-15	-18	-17	-12	-5	0	2	1	1	3	3	5	6	6	5	4	14889
November	-32	0	-4	-6	-26	-17	-4	1	-2	6	16	17	19	25	25	22	18	18	15	-2	-38	-12	-10	-29	14862
December	-2	0	-1	4	6	6	8	5	2	-2	-5	-4	1	0	1	-1	-2	-2	0	-2	-3	-4	-2	-3	14882
Winter	-11	-2	-1	0	-2	0	3	3	-1	0	2	2	4	7	6	5	8	6	2	-1	-12	-5	-3	-10	14880
Equinox	1	3	3	5	6	4	-1	-9	-18	-21	-19	-12	-3	3	6	6	7	11	9	6	6	4	2	1	14890
Summer	-5	0	1	1	-1	-8	-17	-23	-27	-27	-21	-9	4	11	16	23	22	19	18	14	10	4	-3	-3	14895
Year	-5	0	1	2	1	-1	-5	-10	-15	-16	-13	-6	2	7	9	12	12	12	10	6	1	1	-1	-4	14888

East Component Y in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	8	0	0	-3	-7	-11	-10	-10	-13	-12	-14	-14	-11	-10	1	-3	2	13	15	12	22	17	15	13	1654
February	8	5	7	5	2	-1	-7	-8	-8	-11	-13	-15	-15	-13	-7	-3	3	5	6	9	11	16	15	11	1652
March	4	6	5	4	4	7	8	8	4	-6	-18	-26	-29	-26	-15	-5	4	9	9	10	14	12	11	8	1656
May	9	6	7	8	10	12	17	17	10	-2	-16	-27	-30	-27	-20	-14	-7	-3	2	8	7	12	14	7	1655
April	8	12	14	15	20	23	23	18	6	-7	-20	-30	-31	-25	-19	-12	-7	-4	-2	0	2	3	5	9	1656
June	8	8	14	20	25	27	26	19	9	-3	-17	-27	-30	-26	-20	-14	-9	-7	-6	-5	-1	-1	2	5	1658
July	8	11	11	16	21	21	17	12	4	-9	-20	-25	-29	-24	-19	-10	-5	-5	-3	-4	-1	7	6	1666	
August	9	10	13	17	18	19	20	14	5	-8	-23	-32	-32	-27	-18	-9	-3	1	2	2	2	9	11	5	1665
September	7	9	10	11	12	14	14	11	4	-9	-19	-25	-25	-19	-12	-7	-2	1	2	3	2	7	3	7	1667
October	5	5	3	5	4	5	8	9	5	-3	-13	-21	-23	-19	-11	-6	-3	-1	4	8	9	13	10	6	1669
November	8	6	3	0	-6	-6	-5	5	2	0	-5	-15	-16	-14	-9	-7	-8	0	5	11	12	16	11	12	1681
December	3	5	1	-3	-4	-4	-3	-2	-3	-7	-9	-12	-13	-10	-5	-6	0	1	9	10	14	17	14	6	1678
Winter	7	4	2	-1	-4	-5	-6	-4	-5	-7	-10	-14	-14	-12	-5	-5	-1	5	9	11	15	16	14	10	1666
Equinox	7	6	6	7	7	9	12	11	6	-5	-17	-25	-27	-23	-15	-8	-2	2	4	7	8	11	10	7	1662
Summer	8	11	13	17	21	22	22	17	8	-4	-18	-27	-29	-27	-20	-14	-7	-4	-3	-2	0	3	6	6	1661
Year	7	7	7	8	8	9	9	8	3	-5	-15	-22	-23	-20	-13	-9	-3	1	3	5	8	10	10	8	1663

Vertical Component Z in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-25	-29	-25	-20	-14	-10	-6	-4	-2	2	5	12	19	21	26	25	29	28	25	13	-5	-16	-21	-26	49671
February	-12	-9	-10	-11	-8	-7	-7	-6	-5	-3	0	2	5	9	14	19	21	15	16	8	1	-8	-13	-11	49669
March	-24	-16	-12	-10	-7	-3	0	0	-1	-3	-3	1	6	13	21	28	31	23	15	4	-6	-13	-21	-23	49666
May	-14	-6	-4	-2	-1	0	1	0	-3	-6	-6	-4	4	9	13	18	22	22	16	5	-10	-15	-21	-18	49666
April	-12	-9	-8	-8	-5	-2	-1	-2	-4	-6	-6	-1	5	8	10	13	15	15	12	9	3	-4	-11	-12	49665
June	-10	-10	-8	-5	-2	-1	-1	-3	-4	-7	-8	-4	3	8	10	13	14	12	9	6	2	-1	-6	-9	49668
July	-51	-42	-32	-11	-3	-4	-2	1	8	13	13	18	17	10	25	28	28	28	22	12	3	-13	-29	-39	49667
August	-14	-10	-6	-4	-3	-2	-2	-3	-3	-5	-6	-2	4	11	19	21	21	15	7	1	-4	-8	-15	-14	49683
September	-14	-12	-11	-7	-3	-1	0	0	-1	-3	-3	1	5	11	15	14	14	10	9	4	-2	-3	-11	-16	49683
October	-14	-12	-11	-8	-5	-3	0	0	-1	-2	-1	2	7	12	16	16	14	11	9	3	-1	-7	-11	-14	49686
November	-24	-27	-30	-22	-26	-9	-2	6	11	14	14	14	21	25	28	27	27	17	11	2	-13	-16	-18	-28	49700
December	-15	-13	-11	-8	-5	-4	-3	-3	-2	-1	0	2	5	8	10	15	15	13	11	6	3	-5	-9	-10	49702
Winter	-19	-20	-19	-15	-14	-8	-5	-2	0	3	5	7	12	16	20	21	23	19	16	7	-4	-11	-16	-19	49686
Equinox	-16	-11	-9	-7	-4	-2	0	0	-1	-3	-3	0	6	11	16	19	20	16	12	4	-5	-10	-16	-18	49675
Summer	-22	-18	-14	-7	-3	-2	-1	-2	-1	-1	-2	3	8	10	16	19	19	18	13	7	1	-7	-15	-19	49671
Year	-19	-16	-14	-10	-7	-4	-2	-1	-1	-1	0	3	9	12	17	20	21	18	14	6	-2	-9	-15	-18	49677

11.2 Quiet Days

North Component X in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-6	-5	-2	1	4	4	5	5	5	5	2	-7	-5	-1	3	-1	-3	0	-2	2	-6	-2	4	1	14889
February	-3	-4	-3	-2	-1	-1	-1	-1	-1	-2	-3	0	0	1	0	2	3	-1	4	1	3	5	5	1	14896
March	3	2	3	4	6	6	3	-5	-16	-21	-19	-13	-6	-1	3	3	2	5	5	6	8	9	6	7	14899
May	3	2	4	4	4	2	-2	-11	-22	-28	-25	-18	-8	-2	0	6	6	9	13	12	14	13	12	12	14899
April	2	5	5	4	0	-8	-15	-20	-24	-29	-27	-14	-4	3	7	9	12	16	15	14	14	14	10	10	14902
June	4	6	7	5	-1	-6	-12	-16	-19	-23	-23	-20	-11	-3	4	14	16	15	16	14	12	9	7	6	14904
July	5	5	7	7	2	-4	-7	-7	-14	-22	-28	-27	-17	-7	0	7	10	15	15	13	13	10	7	7	14903
August	3	4	4	2	-2	-3	-3	-6	-12	-17	-19	-12	-8	-2	5	6	7	11	11	11	10	8	7	7	14890
September	6	5	5	6	6	3	-3	-12	-22	-27	-24	-15	-5	-1	2	3	6	9	10	11	10	8	10	9	14889
October	2	2	2	3	6	5	0	-9	-17	-21	-18	-12	-5	0	2	4	5	6	7	8	7	7	7	7	14893
November	3	2	2	3	5	4	1	-5	-12	-15	-14	-8	-2	1	3	2	1	2	5	5	5	5	4	4	14884
December	-3	-3	-2	0	3	4	2	0	-4	-7	-6	-3	0	2	3	0	1	2	2	1	3	2	2	0	14886
Winter	-2	-2	-1	0	2	3	2	0	-3	-5	-5	-5	-2	1	2	1	0	1	2	2	1	3	4	2	14889
Equinox	4	3	3	4	5	4	-1	-9	-19	-24	-22	-14	-6	-1	2	4	5	7	9	9	10	9	9	9	14895
Summer	3	5	5	5	0	-5	-9	-12	-18	-23	-24	-18	-10	-2	4	9	12	15	15	14	13	11	8	8	14900
Year	2	2	3	3	3	1	-3	-7	-13	-17	-17	-13	-6	-1	2	5	6	7	8	8	8	7	7	6	14895

East Component Y in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	4	1	-2	1	0	-1	-2	-4	-6	-8	-9	-6	-8	-6	0	-5	-5	-6	3	7	14	11	7	17	1648
February	11	9	8	7	7	6	4	2	-2	-7	-9	-13	-14	-13	-8	-7	-6	-2	-3	1	2	7	10	10	1649
March	5	5	6	8	8	10	13	17	12	1	-12	-21	-23	-20	-11	-4	-3	-2	0	1	0	2	3	3	1649
May	2	7	11	12	14	16	20	18	11	1	-13	-24	-27	-22	-13	-9	-5	-4	-2	-1	0	3	4	4	1652
April	7	10	16	21	24	26	23	19	8	-8	-22	-30	-28	-22	-15	-10	-6	-3	-4	-6	-4	-2	3	3	1656
June	7	9	15	22	25	26	28	24	12	-2	-17	-27	-28	-24	-18	-14	-11	-8	-5	-4	-6	-3	-1	1	1659
July	3	8	14	20	22	21	24	23	16	3	-12	-23	-28	-28	-23	-17	-11	-5	-3	-3	-2	-2	-1	1	1660
August	7	8	10	14	15	16	18	19	10	-1	-13	-24	-28	-22	-15	-8	-4	-4	-4	-3	-1	-1	3	5	1665
September	5	6	9	11	13	16	17	16	11	-1	-15	-24	-27	-20	-12	-6	-3	-2	-1	-2	0	4	4	3	1665
October	4	5	4	4	6	9	13	13	7	-3	-12	-16	-16	-11	-7	-5	-4	-4	-2	-1	1	5	5	5	1667
November	2	3	4	3	3	4	6	10	7	1	-6	-11	-13	-10	-7	-7	-4	-1	1	3	4	3	3	3	1673
December	5	1	0	0	1	2	3	3	2	-2	-5	-9	-10	-7	-5	0	-1	0	2	5	6	5	3	2	1676
Winter	5	4	3	3	3	3	3	3	0	-4	-7	-10	-11	-9	-5	-5	-4	-2	1	4	7	6	6	8	1662
Equinox	4	6	8	9	10	13	16	16	10	-1	-13	-21	-23	-18	-11	-6	-4	-3	-1	-1	0	3	4	4	1658
Summer	6	9	14	19	22	22	24	21	12	-2	-16	-26	-28	-24	-18	-12	-9	-5	-4	-4	-4	-2	1	2	1660
Year	5	6	8	10	11	13	14	13	7	-2	-12	-19	-21	-17	-11	-8	-5	-4	-2	0	1	3	4	5	1660

Vertical Component Z in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-4	-3	-3	-2	-2	-2	-2	-2	-2	-1	1	6	7	6	7	8	11	12	14	1	0	-13	-18	-18	49669
February	-3	-3	-1	-1	-2	-2	-4	-4	-4	-3	-2	-2	-1	1	3	3	5	7	5	6	4	2	-2	-2	49669
March	0	1	2	2	1	1	0	-1	-4	-8	-9	-7	-4	0	4	5	3	3	4	4	2	0	0	0	49664
May	-2	1	4	4	4	4	3	0	-6	-11	-12	-10	-5	1	2	4	5	4	4	3	2	-2	-2	-2	49665
April	-4	-1	1	2	1	1	-1	-4	-7	-8	-10	-6	-1	0	2	5	8	9	7	5	4	1	-3	-3	49666
June	2	3	3	2	1	-2	-3	-4	-8	-11	-11	-7	-2	0	2	6	8	7	6	4	2	2	1	0	49668
July	-4	0	2	0	0	-1	-2	-5	-5	-8	-12	-9	-4	1	4	8	9	8	6	4	2	1	0	1	49669
August	-3	1	2	2	0	-1	-2	-4	-5	-9	-12	-8	-1	4	9	9	9	5	3	2	1	1	1	1	49685
September	-1	1	1	2	2	2	1	0	-2	-6	-9	-8	-3	2	4	3	2	2	2	2	2	1	0	-1	49685
October	-1	-1	-1	0	0	2	3	2	-1	-2	-2	-1	2	3	2	1	0	0	0	0	0	-1	-2	-3	49686
November	-10	-6	-3	-2	-1	-1	1	2	0	-1	-2	-1	1	2	2	3	5	5	3	2	1	0	-1	-1	49696
December	-3	-2	0	0	0	-1	-1	-1	-2	-2	-2	-1	1	2	1	2	2	2	3	3	1	0	-1	-2	49702
Winter	-5	-3	-2	-1	-1	-1	-1	-1	-2	-2	-1	1	2	3	3	4	6	7	6	3	1	-3	-6	-6	49684
Equinox	-1	1	2	2	2	2	2	0	-3	-7	-8	-7	-3	2	3	3	2	3	3	2	2	0	-1	-1	49675
Summer	-2	1	2	2	1	0	-2	-4	-6	-9	-11	-7	-2	2	5	7	8	7	5	3	2	1	-1	-1	49672
Year	-3	-1	1	1	0	0	-1	-2	-4	-6	-6	-4	-1	2	4	5	5	5	5	3	2	0	-2	-3	49677

11.3 Disturbed Days

North Component X in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-19	1	8	-7	8	3	7	7	-1	5	8	0	2	19	14	7	28	5	-7	-6	-20	-18	-25	-20	14873
February	-9	-3	-5	-3	4	-1	-4	-5	-4	-6	-6	-11	-5	-1	1	11	49	47	-1	-7	-14	-7	-11	-7	14886
March	-40	2	-1	7	6	0	4	-6	-26	-15	-9	5	10	17	19	20	30	21	25	-3	13	-10	-24	-43	14878
May	12	6	10	13	13	10	8	4	-5	-22	-16	-6	24	19	32	24	27	59	14	-24	-49	-39	-64	-48	14882
April	3	1	-2	-1	-2	-9	-17	-23	-28	-33	-27	-25	-6	6	15	22	22	19	27	23	19	11	2	4	14895
June	4	3	4	2	2	-9	-31	-33	-30	-26	-21	-13	8	-8	12	21	22	21	22	24	12	6	4	3	14900
July	-192	-83	-74	-56	-60	-87	-108	-91	-71	-40	12	136	208	222	131	184	117	62	24	-4	-14	-40	-84	-92	14875
August	-8	-3	-1	3	10	7	-1	-19	-22	-17	-17	-8	7	32	44	57	52	29	7	-5	-14	-39	-62	-35	14879
September	9	-1	0	7	7	-4	-9	-9	-18	-26	-18	-6	1	8	9	5	7	13	9	14	-3	-2	0	5	14884
October	6	3	3	14	13	5	-1	-6	-14	-13	-16	-9	-4	-1	0	-1	-2	-4	3	10	6	4	0	3	14879
November	-191	8	-21	-53	-187	-130	-41	13	20	87	149	142	128	148	148	124	102	94	72	-35	-235	-78	-70	-193	14786
December	2	1	-6	7	14	10	16	14	5	-4	-6	-3	2	-3	0	-9	-9	-11	-9	-8	-2	3	-2	-1	14878
Winter	-54	2	-6	-14	-40	-29	-5	7	5	20	36	32	32	41	41	33	42	34	14	-14	-68	-25	-27	-55	14856
Equinox	-3	2	3	10	10	3	1	-5	-16	-19	-15	-4	8	11	15	12	16	22	13	-1	-8	-12	-22	-21	14881
Summer	-48	-20	-18	-13	-13	-25	-41	-43	-38	-29	-13	22	54	63	50	71	53	33	20	9	1	-16	-35	-30	14887
Year	-35	-6	-7	-6	-14	-17	-15	-13	-16	-9	3	17	31	38	35	39	37	30	16	-2	-25	-17	-28	-35	14875

East Component Y in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	18	10	5	-12	-15	-26	-17	-22	-20	-17	-26	-20	-8	-20	-8	-7	-7	45	25	23	29	29	22	18	1661
February	4	1	4	10	6	-6	-17	-14	-13	-15	-19	-18	-22	-7	-2	10	14	14	9	4	24	26	20	1655	
March	4	9	4	-3	1	-3	4	-2	-2	-15	-22	-29	-33	-32	-20	3	8	7	11	16	23	23	22	22	1664
May	7	8	0	3	6	12	13	16	12	-7	-19	-31	-35	-36	-34	-34	-21	-7	6	25	7	28	51	30	1658
April	20	20	12	14	17	20	22	14	3	-11	-21	-30	-29	-25	-20	-14	-12	-5	-5	-3	8	10	7	9	1656
June	12	15	16	19	27	31	27	13	4	0	-11	-24	-31	-26	-26	-19	-9	-5	-8	-4	3	-2	2	-1	1658
July	32	39	0	-4	7	4	4	5	12	21	14	14	7	-31	-31	-40	-18	-16	-15	-16	-12	1	8	16	1679
August	16	14	5	10	6	8	6	2	-5	-14	-30	-34	-32	-30	-26	-17	-10	12	16	10	13	31	33	17	1668
September	4	8	4	9	10	9	5	1	-4	-18	-27	-34	-30	-19	-11	-9	5	14	20	12	5	23	5	18	1668
October	16	2	-6	2	0	-1	-6	-3	-4	-10	-17	-29	-30	-26	-10	10	16	3	12	24	15	28	9	4	1672
November	22	14	3	-5	-36	-29	-27	15	7	17	14	-16	-22	-18	-3	-14	-26	3	0	13	20	20	16	35	1705
December	14	12	1	-4	-7	-12	-12	-10	-5	-10	-11	-9	-18	-14	-8	1	22	6	13	18	15	13	7	-2	1679
Winter	14	9	3	-3	-13	-18	-18	-8	-8	-6	-9	-16	-16	-18	-6	-6	0	17	13	16	17	22	18	18	1675
Equinox	8	7	1	3	5	4	4	3	1	-13	-21	-31	-32	-28	-19	-7	2	4	12	19	13	26	22	18	1666
Summer	20	22	8	10	14	16	15	8	4	-1	-12	-19	-21	-28	-26	-23	-12	-4	-3	-3	3	10	12	10	1665
Year	14	13	4	3	2	1	0	1	-1	-7	-14	-22	-23	-25	-17	-12	-4	6	8	11	11	19	17	15	1669

Vertical Component Z in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-54	-63	-72	-67	-49	-31	-20	-15	-8	0	10	38	67	65	71	57	73	77	52	35	-40	-43	-39	-46	49675
February	-19	-15	-26	-34	-24	-21	-19	-16	-15	-7	3	5	9	16	28	51	66	48	46	10	-15	-22	-25	-26	49677
March	-84	-45	-35	-29	-18	-15	2	6	12	12	9	10	12	24	43	68	84	60	46	17	-10	-35	-64	-70	49664
May	-9	-11	-8	-10	-7	-6	-3	-2	-2	-4	0	2	19	23	35	46	68	72	40	-9	-44	-40	-78	-71	49667
April	-12	-10	-21	-20	-15	-9	-3	-4	-4	-3	2	8	13	15	19	20	23	25	12	11	3	-8	-21	-20	49663
June	-16	-26	-24	-16	-8	-4	-5	-5	-3	-3	-4	2	15	21	17	24	29	24	15	4	2	-4	-12	-26	49668
July	-249	-170	-124	-59	-24	-31	-10	17	58	93	106	122	87	16	87	94	87	94	71	23	-1	-45	-91	-152	49647
August	-38	-32	-28	-27	-19	-12	-6	-3	0	1	4	13	20	39	64	76	74	52	14	-14	-29	-44	-69	-35	49684
September	-17	-19	-23	-15	-9	-4	-2	0	0	0	2	14	28	43	50	41	40	25	16	-7	-27	-23	-49	-65	49681
October	-39	-41	-40	-22	-13	-10	-3	1	3	3	7	14	29	40	52	44	35	24	19	-5	-12	-23	-29	-33	49683
November	-79	-92	-137	-103	-139	-38	-4	36	67	82	81	65	96	106	115	99	97	47	14	-28	-76	-59	-49	-99	49691
December	-27	-23	-20	-13	-12	-12	-10	-9	-6	-3	2	4	7	15	22	46	39	22	18	9	3	-5	-19	-29	49705
Winter	-45	-48	-64	-54	-56	-26	-13	-1	10	18	24	28	45	51	59	63	69	49	33	7	-32	-32	-33	-50	49687
Equinox	-37	-29	-27	-19	-12	-9	-1	1	3	3	4	10	22	33	45	50	57	45	30	-1	-24	-30	-55	-60	49674
Summer	-79	-59	-49	-30	-16	-14	-7	1	13	22	27	36	34	23	47	54	54	49	28	6	-6	-25	-48	-58	49665
Year	-54	-46	-47	-35	-28	-16	-7	0	9	14	18	25	33	35	50	55	60	48	30	4	-21	-29	-45	-56	49675

12 Monthly and Annual Means

All days

	Z	H	D	F	X	Y	I
January	49671	14975	6° 20.4'	51879	14884	1654	73° 13.4'
February	49669	14983	6° 19.7'	51880	14892	1652	73° 12.8'
March	49666	14982	6° 20.7'	51877	14890	1656	73° 12.8'
May	49666	14984	6° 20.5'	51877	14893	1655	73° 12.7'
April	49665	14990	6° 20.6'	51878	14899	1656	73° 12.3'
June	49668	14994	6° 21.0'	51882	14902	1658	73° 12.1'
July	49667	14985	6° 22.9'	51878	14892	1666	73° 12.7'
August	49683	14981	6° 23.0'	51892	14888	1665	73° 13.2'
September	49683	14981	6° 23.4'	51892	14887	1667	73° 13.2'
October	49686	14982	6° 23.7'	51895	14889	1669	73° 13.2'
November	49700	14957	6° 27.3'	51901	14862	1681	73° 15.1'
December	49702	14976	6° 26.1'	51909	14882	1678	73° 13.9'
Winter	49686	14973	6° 23.4'	51893	14880	1666	73° 13.8'
Equinox	49675	14982	6° 22.1'	51885	14890	1662	73° 13.0'
Summer	49671	14987	6° 21.9'	51882	14895	1661	73° 12.6'
Year	49677	14981	6° 22.4'	51887	14888	1663	73° 13.1'

5 Quiet days

	Z	H	D	F	X	Y	I
January	49669	14980	6° 19.0'	51879	14889	1648	73° 13.0'
February	49669	14987	6° 19.1'	51880	14896	1649	73° 12.6'
March	49664	14990	6° 19.0'	51877	14899	1649	73° 12.3'
May	49665	14990	6° 19.7'	51878	14899	1652	73° 12.3'
April	49666	14993	6° 20.4'	51880	14902	1656	73° 12.1'
June	49668	14996	6° 21.0'	51883	14904	1659	73° 12.0'
July	49669	14995	6° 21.5'	51883	14903	1660	73° 12.1'
August	49685	14983	6° 22.8'	51895	14890	1665	73° 13.1'
September	49685	14982	6° 22.9'	51894	14889	1665	73° 13.2'
October	49686	14986	6° 23.3'	51897	14893	1667	73° 13.0'
November	49696	14978	6° 24.8'	51904	14884	1673	73° 13.7'
December	49702	14980	6° 25.3'	51910	14886	1676	73° 13.7'
Winter	49684	14981	6° 22.1'	51894	14889	1662	73° 13.2'
Equinox	49675	14987	6° 21.2'	51887	14895	1658	73° 12.7'
Summer	49672	14992	6° 21.4'	51885	14900	1660	73° 12.3'
Year	49677	14987	6° 21.6'	51888	14895	1660	73° 12.7'

5 Disturbed days

	Z	H	D	F	X	Y	I
January	49675	14965	6° 22.4'	51880	14873	1661	73° 14.0'
February	49677	14978	6° 20.7'	51886	14886	1655	73° 13.3'
March	49664	14971	6° 22.8'	51872	14878	1664	73° 13.5'
May	49667	14974	6° 21.4'	51875	14882	1658	73° 13.4'
April	49663	14987	6° 20.7'	51875	14895	1656	73° 12.4'
June	49668	14992	6° 21.0'	51881	14900	1658	73° 12.3'
July	49647	14970	6° 26.3'	51855	14875	1679	73° 13.3'
August	49684	14972	6° 23.8'	51891	14879	1668	73° 13.8'
September	49681	14978	6° 23.7'	51890	14884	1668	73° 13.4'
October	49683	14973	6° 24.8'	51890	14879	1672	73° 13.7'
November	49691	14884	6° 34.6'	51872	14786	1705	73° 19.5'
December	49705	14972	6° 26.3'	51911	14878	1679	73° 14.2'
Winter	49687	14950	6° 26.0'	51887	14856	1675	73° 15.3'
Equinox	49674	14974	6° 23.2'	51882	14881	1666	73° 13.5'
Summer	49665	14980	6° 23.0'	51875	14887	1665	73° 12.9'
Year	49675	14968	6° 24.0'	51881	14875	1669	73° 13.9'

13 Hourly Means of All Days as Sequenced in Bartels' 27-day Solar Rotation Number

13.1 H-Component

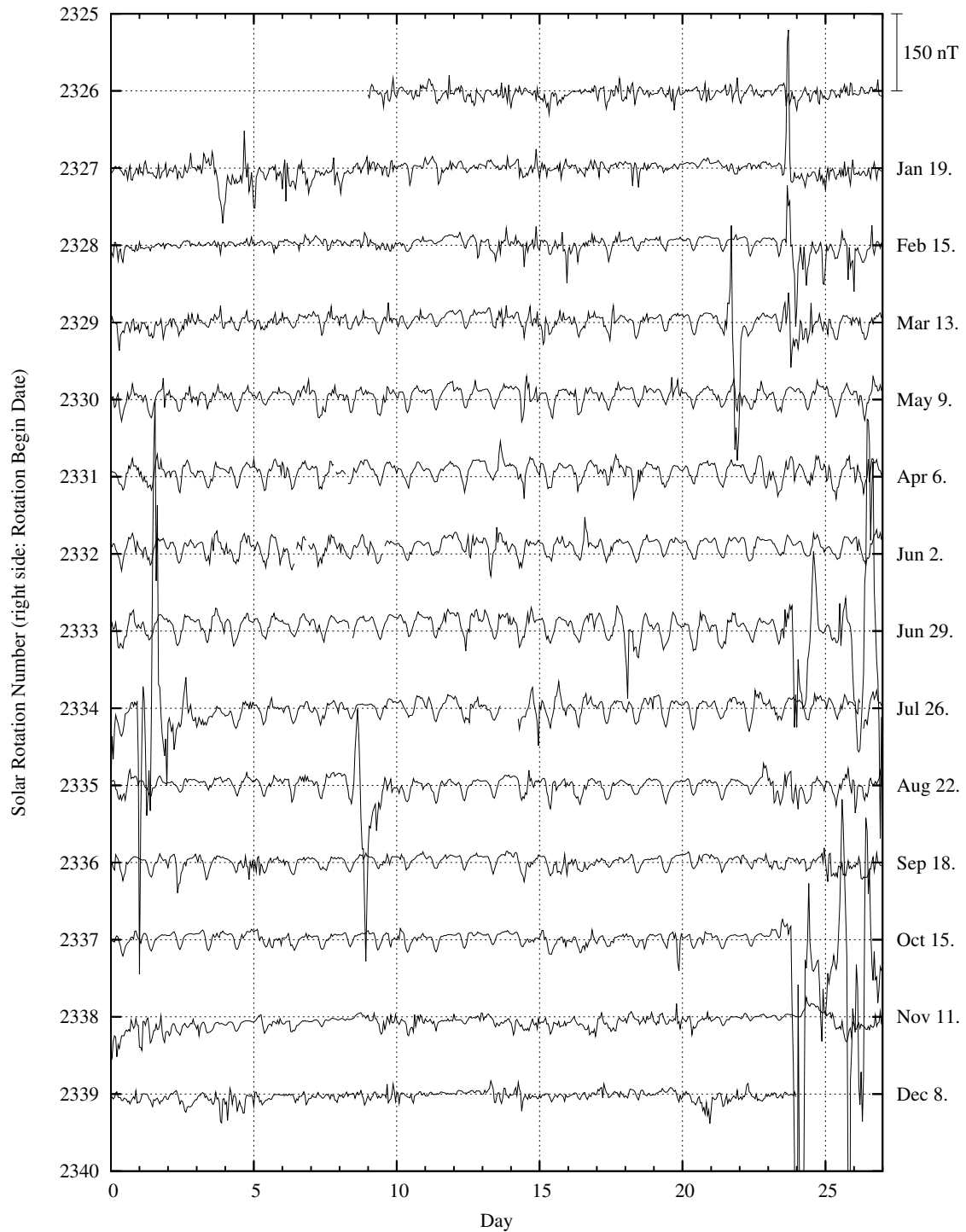


Figure 3: Hourly means of H sequenced in Bartels' solar rotation cycles.

13.2 D-Component

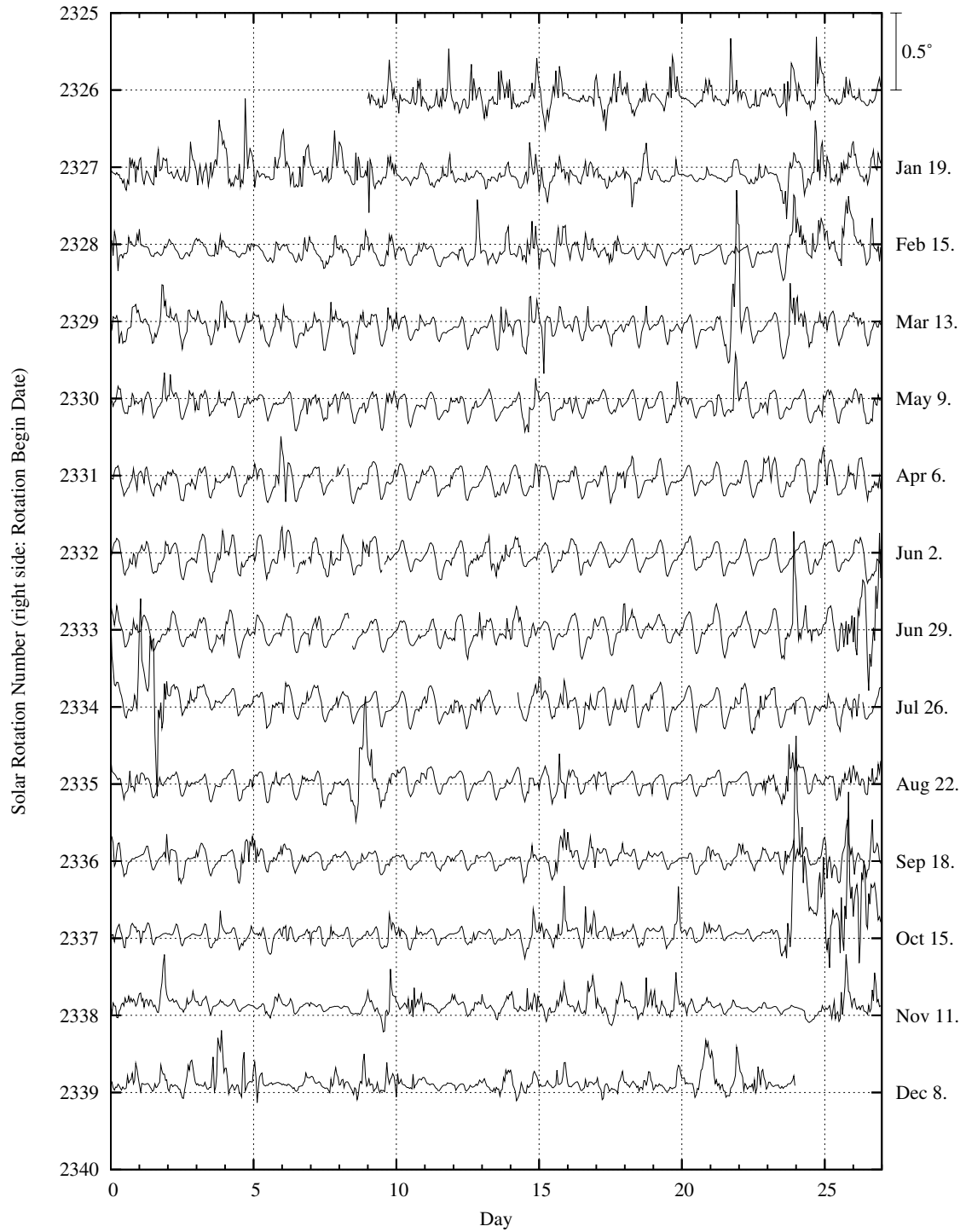


Figure 4: Hourly means of D sequenced in Bartels' solar rotation cycles.

13.3 Z-Component

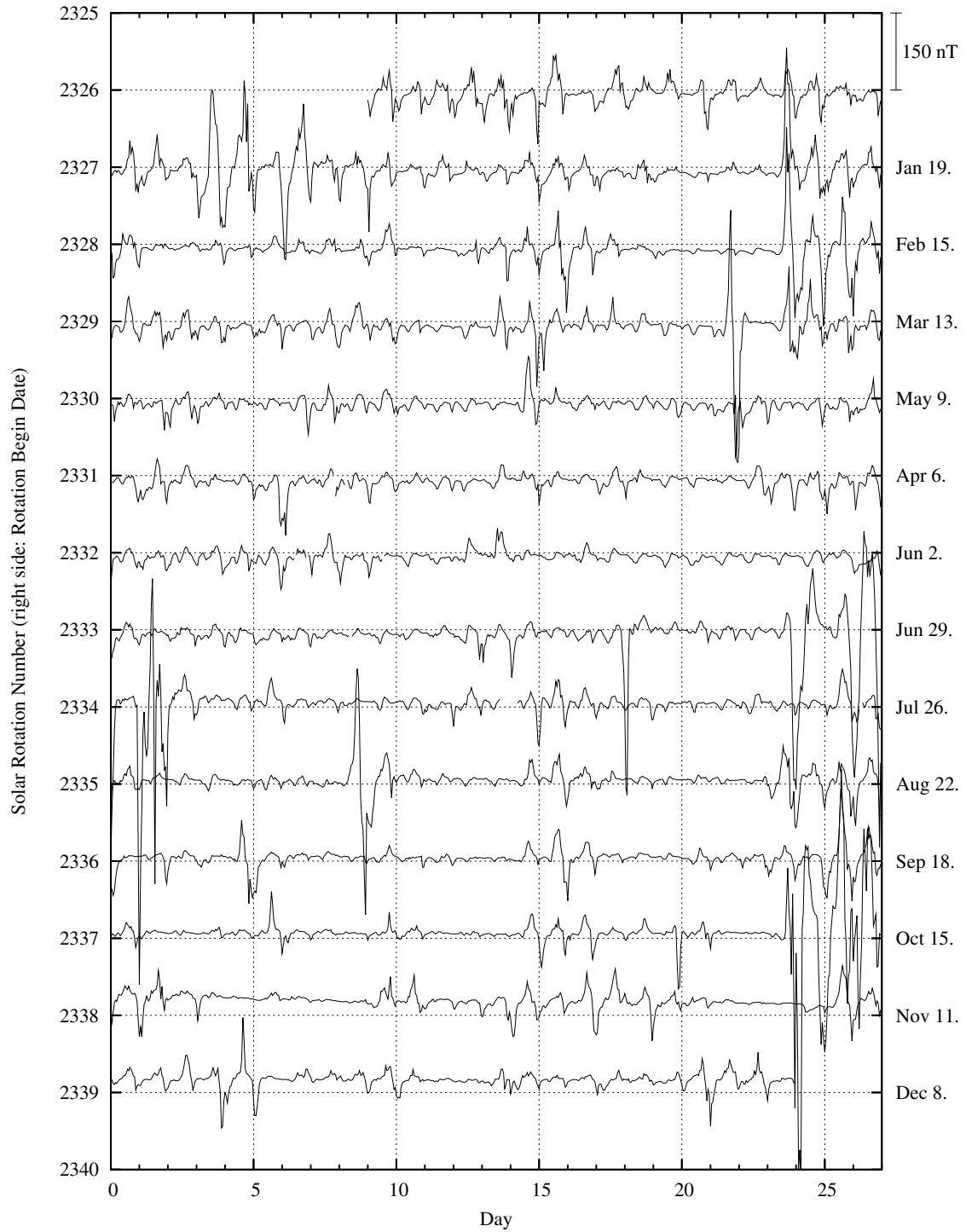


Figure 5: Hourly means of Z sequenced in Bartels' solar rotation cycles.

14 K-Indices

14.1 Monthly Tables of K-Indices

January										February										March																																							
Day		K						Ak		Day		K						Ak		Day		K						Ak																															
1		3	2	3	2		4	4	5	4	22	1		1	2	2	1		2	2	3	3	8	1		3	2	3	2		3	5	5	5	25																								
2		3	2	2	2		3	3	4	4	15	2		1	1	3	3		3	5	2	4	17	2		3	3	3	2		3	3	4	4	17																								
3		2	3	3	3		3	3	5	3	18	3		4	3	3	3		3	4	3	3	18	3		2	2	2	3		3	3	3	1	11																								
4		3	3	2	3		4	5	4	2	20	4		4	2	3	2		2	3	4	4	15	4		1	1	2	2		1	2	2	1	5																								
5		3	3	2	3		4	6	5	4	29	5		3	2	2	3		2	2	2	3	10	5		2	2	2	1		1	1	1	2	5																								
6		3	2	3	3		2	2	3	5	16	6		2	3	4	4		3	4	4	2	19	6		2	1	1	1		1	0	0	0	2																								
7		3	3	4	4		4	5	4	3	25	7		1	1	2	1		1	1	3	1	5	7		0	0	1	2		1	0	2	2	3																								
8		1	1	1	2		2	1	2	4	8	8		0	0	1	1		0	1	1	3	3	8		1	1	1	2		1	1	0	0	3																								
9		3	3	4	2		3	5	4	2	20	9		1	0	1	1		2	2	3	3	7	9		1	1	2	3		3	7	6	6	43																								
10		4	3	3	3		4	4	4	2	20	10		2	1	1	2		2	3	0	2	6	10		6	5	5	3		4	3	5	6	45																								
11		1	1	2	3		5	5	4	3	21	11		2	1	1	2		4	8	7	4	57	11		4	3	3	3		4	6	6	5	38																								
12		0	1	0	1		2	2	4	4	9	12		2	3	4	3		3	5	6	4	29	12		6	3	3	2		3	4	3	3	24																								
13		3	2	2	2		4	5	4	4	21	13		4	3	2	3		4	4	4	5	24	13		3	2	3	3		3	2	3	2	12																								
14		3	1	1	2		3	2	3	3	10	14		4	3	3	3		3	4	4	3	20	14		3	2	2	3		3	2	5	3	16																								
15		2	2	1	1		4	4	5	4	19	15		4	3	3	3		2	4	3	3	17	15		3	3	2	2		3	3	3	3	13																								
16		4	2	3	3		3	5	5	3	24	16		4	1	1	2		1	0	3	1	8	16		3	1	1	2		2	3	3	3	10																								
17		2	2	3	3		3	3	5	4	19	17		1	0	0	0		0	1	2	2	3	17		3	2	1	1		1	1	3	2	7																								
18		2	3	2	2		2	1	5	5	18	18		2	1	0	0		1	3	3	3	7	18		2	2	2	2		2	2	3	4	11																								
19		2	2	2	2		3	4	3	3	13	19		2	2	2	1		0	2	3	3	8	19		4	1	1	1		2	1	2	2	8																								
20		3	3	2	3		4	5	3	3	20	20		1	1	0	0		0	2	2	1	3	20		2	2	1	2		2	5	2	3	13																								
21		2	2	3	2		3	3	5	3	16	21		2	1	0	1		2	2	3	2	6	21		3	2	2	2		3	2	3	1	10																								
22		5	4	4	5		6	5	6	5	51	22		2	1	1	2		3	2	4	3	11	22		2	2	1	1		2	3	3	3	9																								
23		4	3	3	4		4	7	6	5	47	23		2	2	1	2		2	2	2	3	8	23		3	2	2	2		1	2	3	2	9																								
24		5	2	2	2		2	3	4	4	18	24		3	2	1	2		2	3	3	3	11	24		1	0	0	1		0	0	0	1	2																								
25		5	6	3	3		4	5	5	4	39	25		2	1	1	1		2	0	3	3	7	25		0	0	1	0		1	3	2	1	4																								
26		3	2	2	2		3	3	5	3	16	26		1	1	0	0		1	0	1	1	2	26		1	1	1	2		4	4	4	4	16																								
27		4	2	3	2		4	4	2	3	17	27		0	3	2	2		1	2	5	4	14	27		2	2	2	4		4	5	3	5	23																								
28		5	3	3	3		2	3	5	3	22	28		1	2	3	3		3	3	4	4	16	28		3	5	3	3		3	3	3	2	18																								
29		2	1	2	2		2	1	2	2	6	29		2	3	3	4		4	3	4	4	20	29		2	2	2	2		3	4	2	2	11																								
30		2	2	2	4		3	3	4	4	17													30		1	2	2	3		4	2	2	2	10																								
31		1	1	1	3		1	1	1	2	5													31		1	1	2	2		3	3	3	1	9																								
Mean										20.0										Mean										13.1										Mean										13.9									

May										April										June															
Day		K						Ak		Day		K						Ak		Day		K						Ak							
1		0	0	1	1		2	1	2	1	3	1		3	2	2	2		3	3	3	2	11	1		3	3	3	3		4	3	2	3	16
2		1	0	1	1		1	1	0	0	2	2		3	1	1	3		2	2	2	1	8	2		2	2	2	3		2	3	3	3	11
3		1	2	2	3		5	7	9	6	88	3		1	1	2	1		2	2	2	3	7	3		2	2	2	2		2	2	2	3	8
4		7	2	1	2		3	3	2	2	25	4		2	2	2	2		2	1	2	2	7	4		3	2	1	2		3	2	2	2	9
5		1	1	1	1		3	5	6	5	25	5		2	3	2	2		3	4	3	3	14	5		2	2	1	3		3	3	3	3	12
6		4	3	3	4		5	2	4	3	23	6		2	2	2	3		2	2	3	3	10	6		3	3	2	3		3	2	3	2	12
7		3	2	2	2		2	1	4	3	11	7		2	3	2	3		3	3	4	3	15	7		3	2	1	2		3	2	2	4	11
8		2	2	2	3		3	2	2	2	9	8		2	2	2	2		3	2	2	8	8		4	3	2	2		2	3	2	1	11	
9		3	3	3	3		2	2	3	2	12	9		2	2	1	2		2	2	1	1	6	9		3	1	2	3		3	3	3	2	12
10		2	2	2	1		1	1	3	4	9	10		1	1	1	2		2	2	2	2	6	10		3	2	2	1		3	1	3	2	9
11		3	2	2	2		2	3	3	3	11	11		3	2	1	2		2	2	3	5	14	11		3	1	1	2		2	2	1	0	6
12		3	2	2	3		2	2	4	1	11	12		4	5	2	1		2	2	2	1	14	12		0	1	1	2		2	1	0	0	3
13		2	1	1	1		1	1	3	2	6	13		1	2	3	2		3	3	4	3	13	13		0	1	1	2		2	2	1	2	5
14		1	1	0	0		1	1	0	2	2	14		1	1	1	1		2	1	2	2	5	14		1	1	2	3		4	3	2	2	11
15		1	0	1	3		2	2	2	3	7	15		3	2	1	2		2	1	1	3	8	15		2	2	3	3		5	4	3	2	18
16		2	2	2	3		2	3	3	3	11	16		2	0	1	2		2	1	1	2	5	16		2	2	3	2		3	2	1	2	9
17		2	2	1	2		2	1	2	2	6	17		1	1	0	2		1	1	1	2	4	17		1	2	2	3		2	3	2	1	8
18		1	2	2	2		3	2	3	3	10	18		1	1	1	2		2	1	1	1	4	18		1	2	2	3		4	3	2	2	11
19		2	1	2	2		2	2	1	1	6	19		1	2	1	2		4	4	2	2	11	19		2	1	2	2		3	2	1	0	6
20		2	0	2	2		1	0	1	2	4	20		1	2	3	4		3	3	3	3	14	20		1	1	1	1		2	2	2	1	5
21		1	2	2	2		2	1	3	1	7	21		4	2	2	3		3	3	1	0	11	21		1	1	1	2		2	2	1	1	5
22		0	0	2	1		2	2	2	1	4	22		2	2	3	2		2	2	1	1	7	22		0	1	1	1		1	1	1	1	3
23		2	2	3	3		4	3	3	3	15	23		3	2	2	3		4	3	2	2	13	23		1	1	0	1		2	2	1	1	4
24		1	1	2	4		2	2	1	2	8	24		3	2	3	3		4	2	2	1	12	24		1	1	2	1		3	1	1	0	5
25		2	2	3	3		2	3	2	2	10	25		1	1	2	2		2	1	1	0	4	25		0	1	0	0		3	2	2	0	4
26		2	1	1	1		2	3	2	1	6	26		0	1	1	2		2	2	0	1	4	26		1	1	1	2		4	3	2	2	9
27		0	1	1	1		2																												

July

Day	K				Ak
1	2	2	2	2	8
2	2	2	1	3	11
3	3	1	2	2	7
4	2	2	1	2	6
5	3	1	1	2	8
6	1	2	2	2	5
7	0	1	2		2
8	1	1	0	1	2
9	1	1	1	1	4
10	1	1	2	2	7
11	3	1	1	4	22
12	4	2	2	2	13
13	4	2	3	2	14
14	1	1	2	2	7
15	1	1	0	1	5
16	1	1	1	2	10
17	6	3	3	3	19
18	2	1	2	3	7
19	1	1	1	2	8
20	1	2	2	2	8
21	1	1	1	1	3
22	0	0	1	4	34
23	6	5	5	5	43
24	2	2	4	3	32
25	6	6	6	8	180
26	7	5	2	3	53
27	9	7	7	9	255
28	4	4	3	3	20
29	3	3	2	2	8
30	1	1	1	2	7
31	2	1	2	2	8
Mean					26.3

August

Day	K				Ak
1	3	2	1	1	9
2	1	1	2	2	6
3	2	1	0	1	2
4	0	0	2	1	3
5	0	0	1	2	5
6	3	1	1	1	6
7	3	2	2	4	16
8	1	1	1	1	3
9	2	2	3	2	18
10	4	2	1	2	18
11	2	1	2	3	11
12	3	2	1	2	7
13	2	2	1	1	7
14	2	2	3	3	8
15	0	1	0	1	2
16	0	1	1	1	6
17	3	1	1	1	11
18	2	2	3	2	10
19	2	0	0	2	6
20	3	2	2	4	17
21	3	3	3	3	14
22	3	2	2	3	12
23	2	1	1	2	5
24	1	1	0	1	3
25	0	1	1	2	4
26	1	0	1	1	7
27	1	1	1	1	6
28	2	1	2	2	6
29	1	1	0	2	4
30	2	2	3	3	45
31	5	4	4	3	23
Mean					9.7

September

Day	K				Ak
1	2	2	1	2	7
2	2	1	1	2	5
3	1	0	0	1	2
4	0	0	1	2	3
5	1	1	1	2	7
6	3	1	2	3	13
7	3	2	2	2	8
8	3	2	2	1	6
9	0	1	1	1	5
10	0	0	0	1	1
11	0	0	0	0	2
12	1	0	0	0	2
13	0	0	0	0	9
14	3	4	3	4	31
15	4	2	2	2	14
16	3	2	2	3	16
17	5	2	3	3	19
18	4	4	2	3	12
19	0	0	1	1	6
20	3	1	3	3	10
21	2	2	2	1	6
22	1	1	3	3	18
23	4	4	2	1	13
24	3	1	1	1	6
25	0	1	0	2	4
26	1	0	0	0	3
27	1	0	0	2	4
28	0	2	2	1	5
29	1	0	1	2	5
30	1	0	0	0	2
Mean					8.1

October

Day	K				Ak
1	0	1	1	1	4
2	1	1	2	3	9
3	1	1	1	2	11
4	3	2	2	2	12
5	2	1	1	0	4
6	1	1	0	1	2
7	0	0	0	0	0
8	0	1	2	2	5
9	3	1	1	1	5
10	3	2	1	2	8
11	3	2	2	1	10
12	2	2	2	2	9
13	4	4	3	3	24
14	3	3	3	3	18
15	2	2	2	1	11
16	3	1	1	1	3
17	0	0	0	0	0
18	0	0	0	0	4
19	0	0	1	1	3
20	1	2	2	2	7
21	2	3	2	2	7
22	3	1	1	1	7
23	0	0	0	0	1
24	2	1	1	2	8
25	2	3	3	2	10
26	1	0	0	0	1
27	0	0	0	0	3
28	1	0	0	0	2
29	0	0	0	1	6
30	3	3	1	2	16
31	2	1	1	2	13
Mean					7.2

November

Day	K				Ak
1	3	1	1	1	6
2	2	0	1	1	4
3	1	0	1	2	16
4	1	2	2	1	8
5	2	0	0	1	2
6	0	0	0	0	0
7	2	2	1	3	92
8	9	9	9	7	191
9	6	5	4	6	189
10	8	7	8	9	177
11	4	4	3	3	19
12	4	4	3	4	32
13	2	2	2	2	8
14	3	2	2	1	6
15	0	0	1	0	1
16	0	1	2	2	7
17	1	1	2	2	5
18	1	0	0	0	1
19	0	0	1	0	3
20	3	2	2	3	18
21	2	2	2	3	16
22	2	1	2	2	5
23	3	1	0	1	7
24	2	1	2	2	7
25	3	3	2	2	15
26	2	2	2	1	8
27	1	1	2	2	15
28	3	2	1	2	11
29	3	2	2	3	15
30	3	3	2	2	13
Mean					29.9

December

Day	K				Ak
1	2	2	3	2	8
2	1	1	0	0	2
3	0	0	1	2	3
4	0	0	0	0	0
5	0	0	4	2	7
6	2	2	3	3	23
7	3	2	2	2	13
8	2	2	2	2	12
9	2	0	1	2	7
10	2	2	1	2	10
11	1	1	2	1	17
12	4	4	3	3	25
13	4	3	2	1	7
14	0	1	2	1	5
15	2	1	1	0	7
16	2	3	2	1	20
17	3	3	3	3	17
18	4	2	2	2	11
19	1	1	1	1	2
20	2	0	1	1	4
21	1	1	3	3	11
22	3	3	3	3	14
23	2	1	1	1	8
24	1	0	1	1	4
25	3	3	3	2	11
26	2	2	2	2	9
27	2	2	2	2	7
28	3	2	1	2	14
29	4	2	2	2	13
30	2	3	4	3	19
31	3	1	1	2	8
Mean					10.3

14.2 K-Indices Sequenced in Bartel's Solar Rotation Number

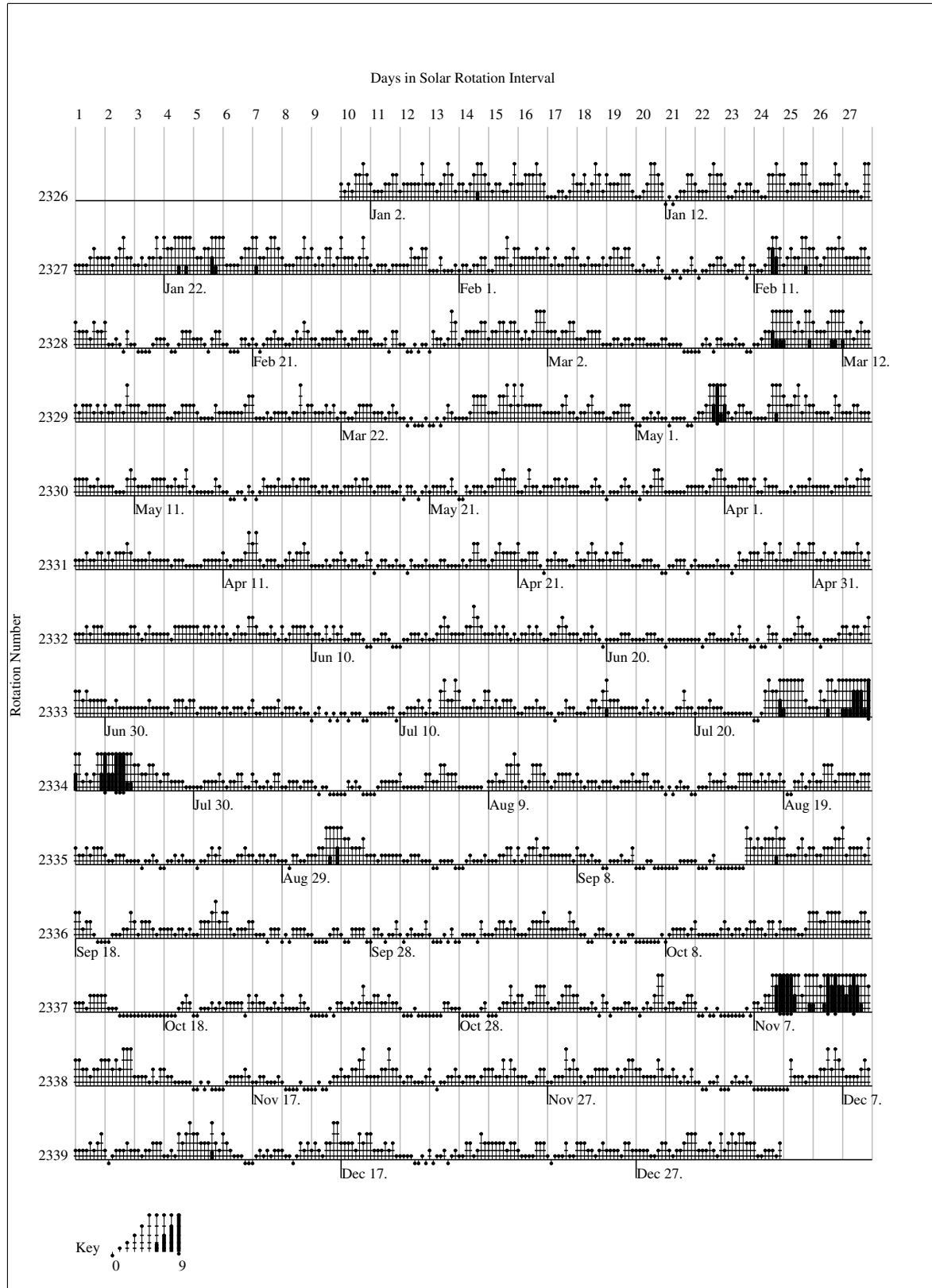


Figure 6: K-indices sequenced in Bartel's solar rotation number

14.3 Ak-Indices

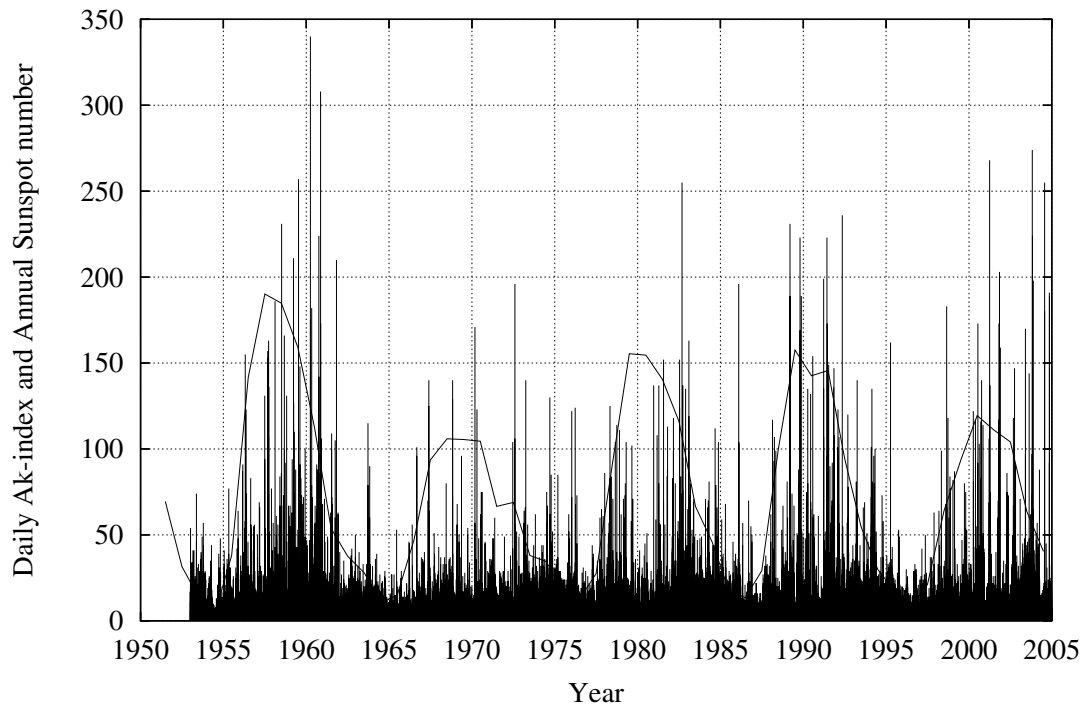


Figure 7: Daily Ak-indices (vertical lines) and sunspots (solid line)

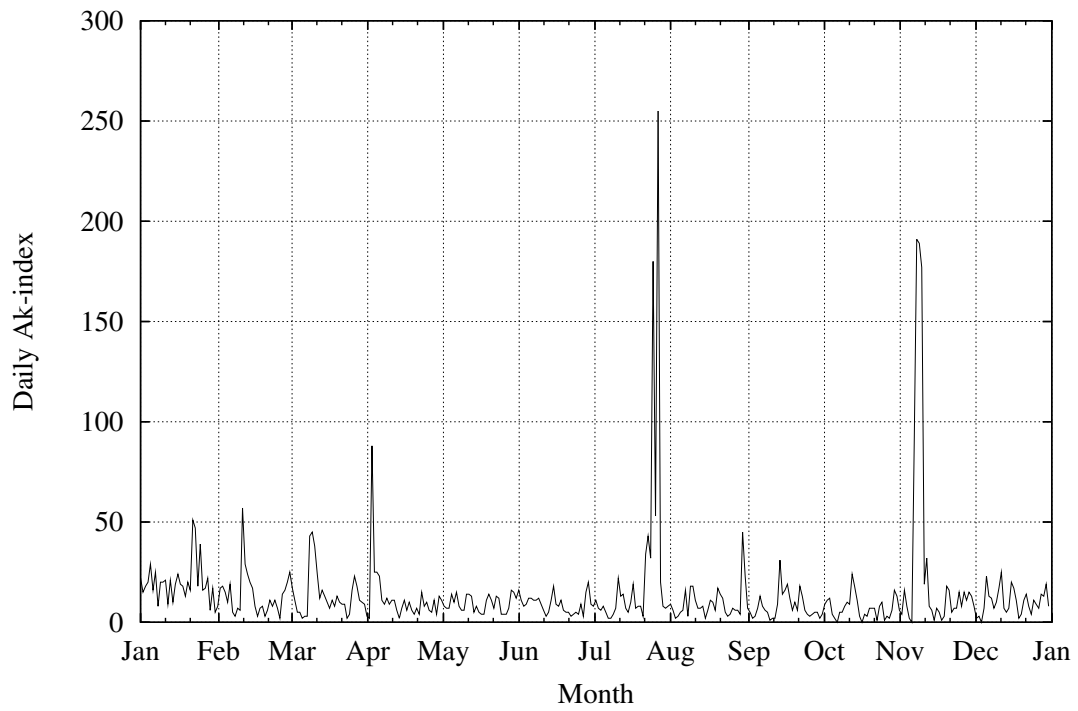


Figure 8: Daily Ak-indices

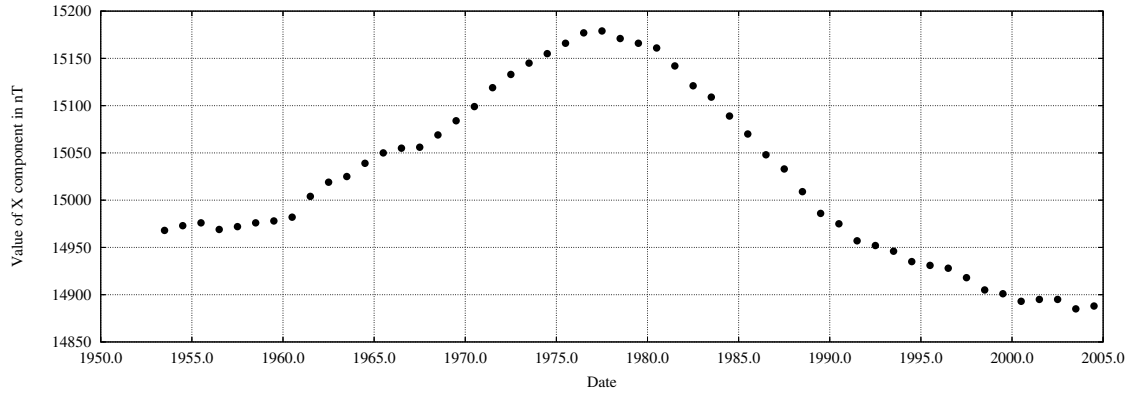
14.4 Table of Annual Ak-indices

m/M denotes sunspot minimum/maximum

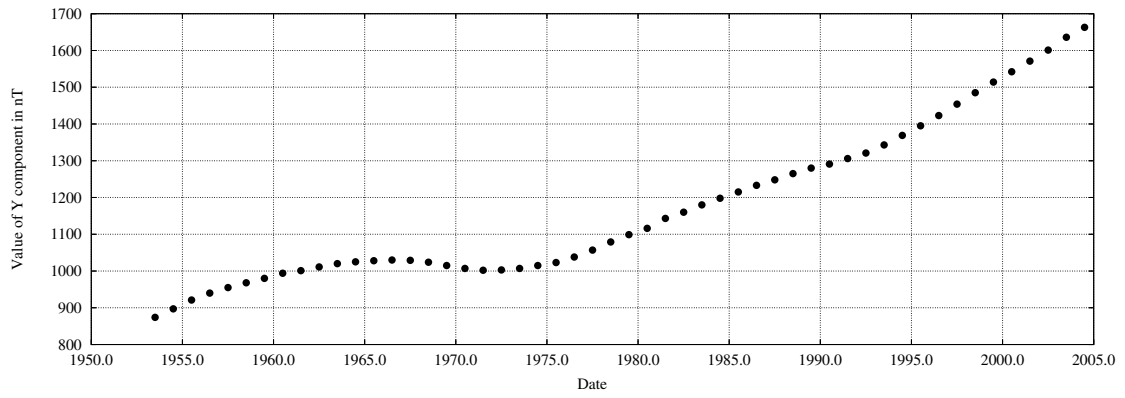
Year	Ak
1953	11
1954m	8
1955	9
1956	14
1957M	16
1958	18
1959	21
1960	22
1961	12
1962	10
1963	10
1964m	8
1965	6
1966	8
1967	10
1968M	11
1969	10
1970	10
1971	9
1972	10
1973	13
1974	15
1975	11
1976m	10
1977	9
1978	13

Year	Ak
1979M	12
1980	9
1981	13
1982	19
1983	15
1984	14
1985	10
1986m	10
1987	8
1988	11
1989M	16
1990	13
1991	21
1992	15
1993	13
1994	16
1995	11
1996m	9
1997	8
1998	12
1999	12
2000M	15
2001	14
2002	13
2003	22
2004	14

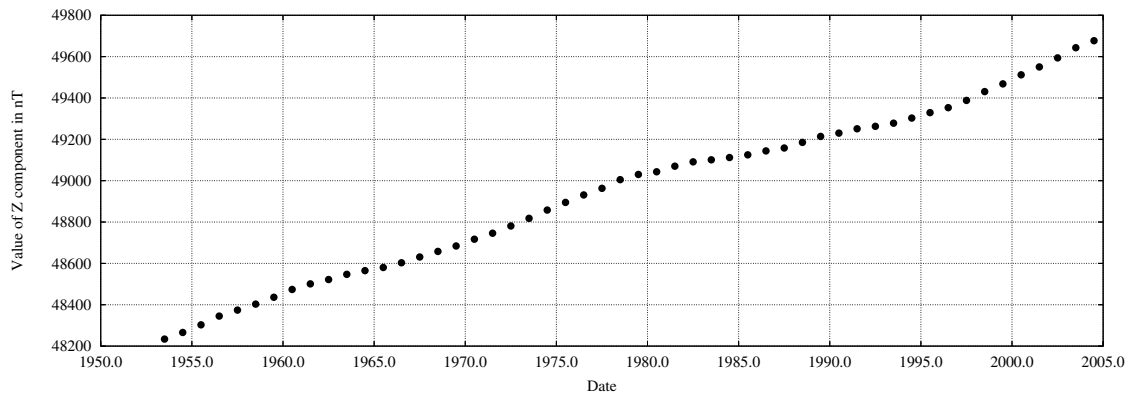
15 Annual Means



(a) Annual means for X component

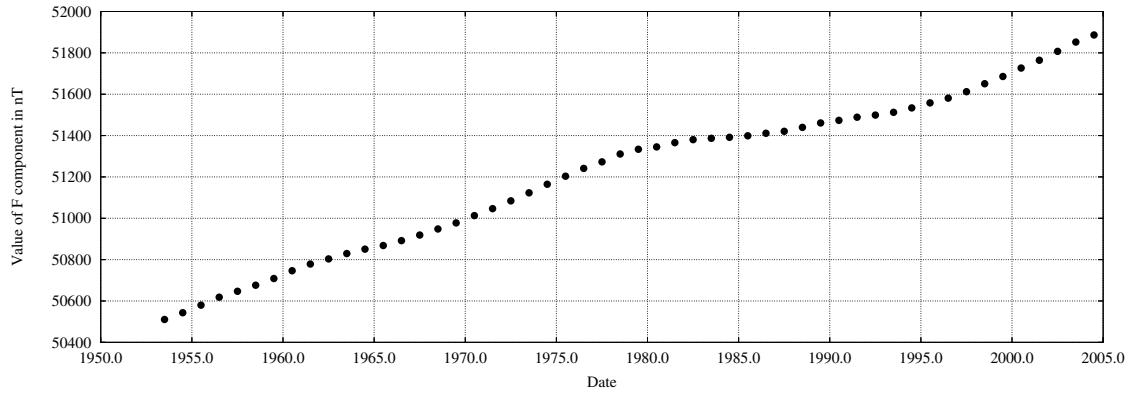


(b) Annual means for Y component

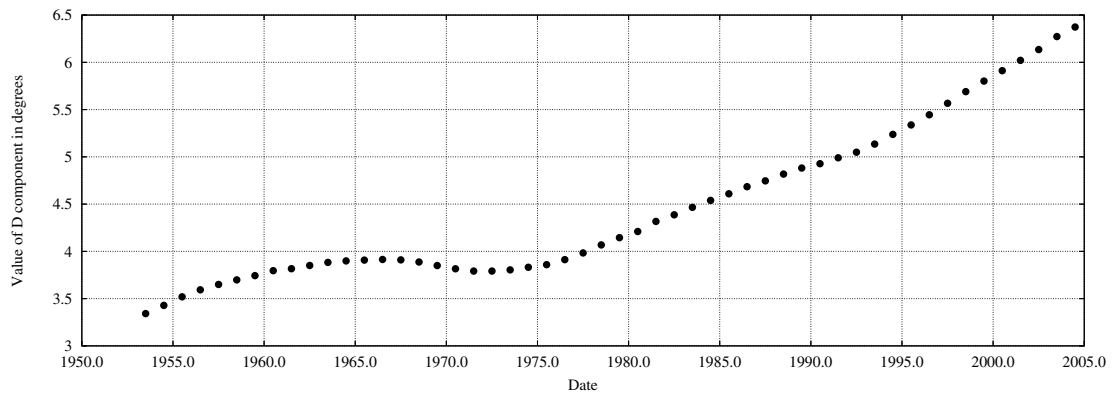


(c) Annual means for Z component

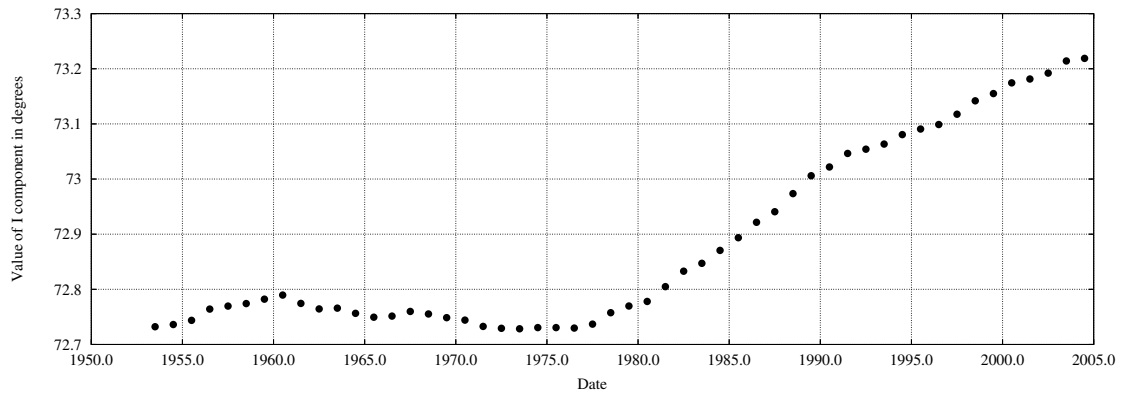
Figure 9: Figures of annual means of X, Y, and Z



(a) Annual means for F component



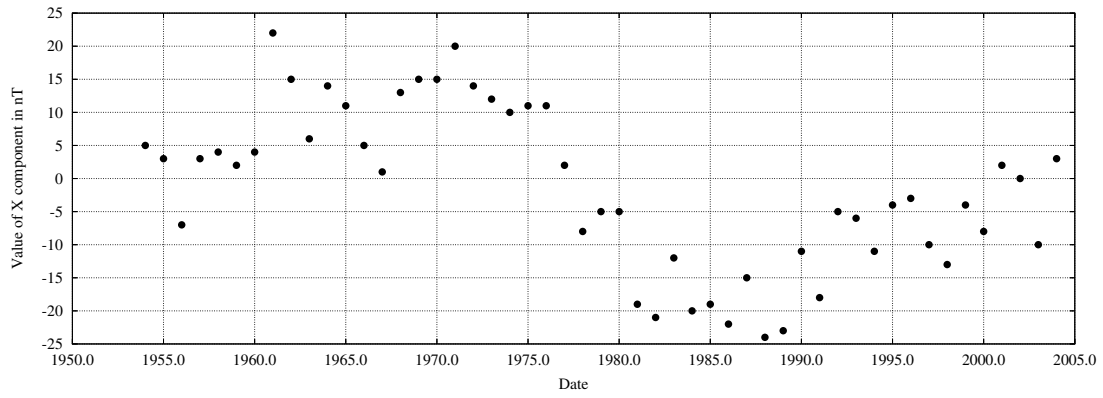
(b) Annual means for D component



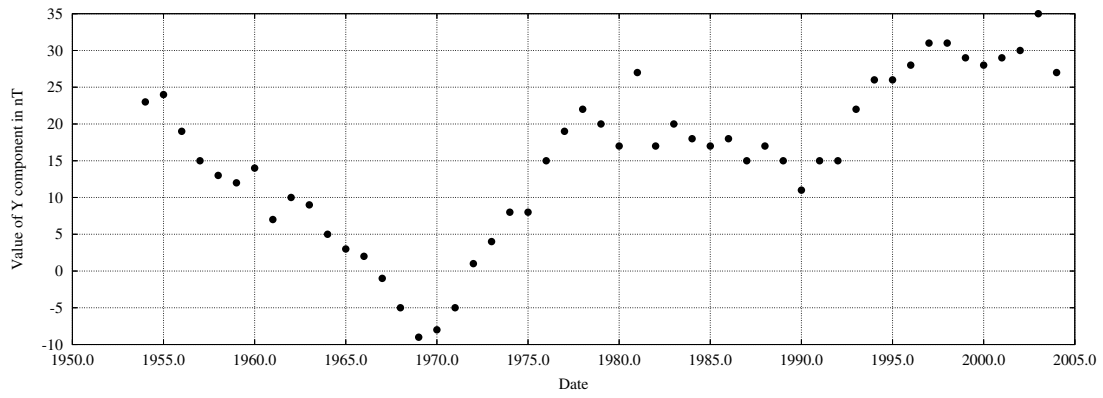
(c) Annual means for I component

Figure 10: Figures of annual means of F, D, and I

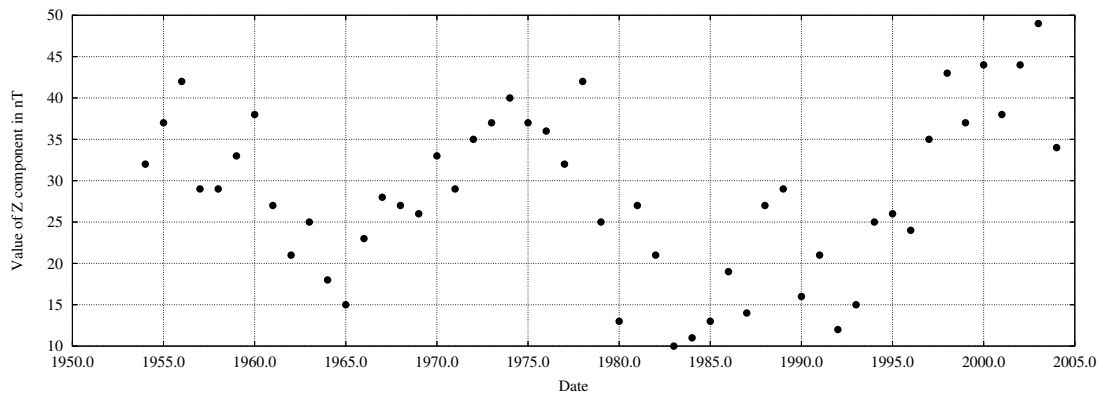
16 Secular Variation



(a) Annual change of X component

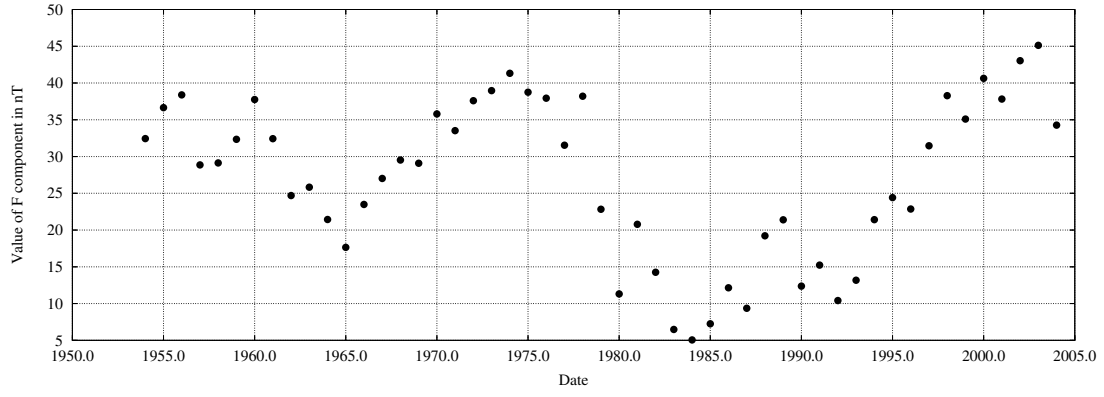


(b) Annual change of Y component

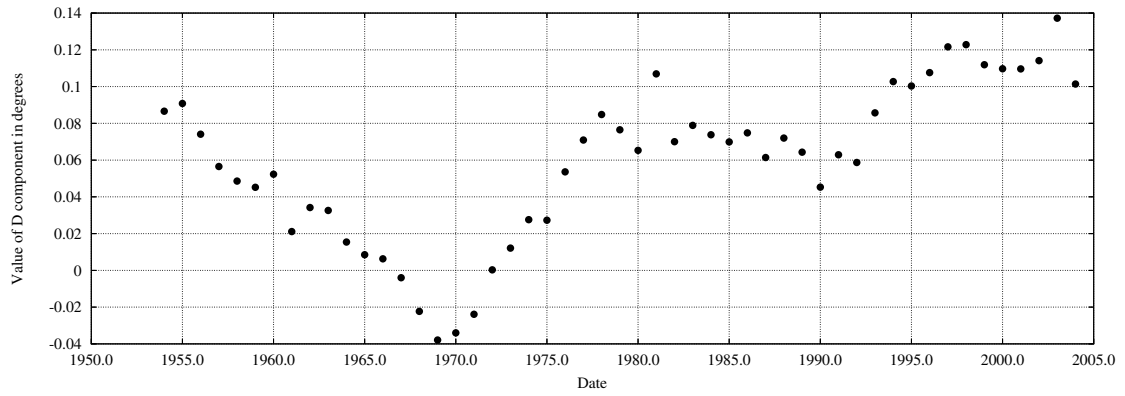


(c) Annual change of Z component

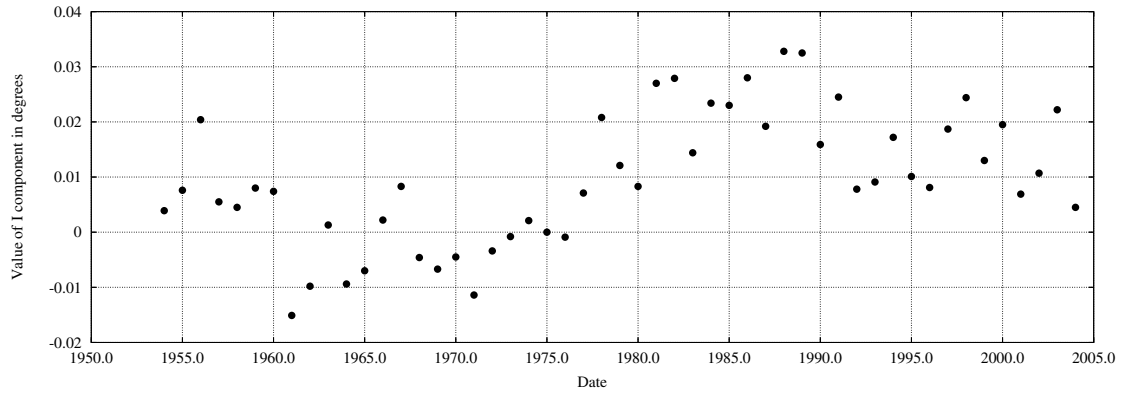
Figure 11: Annual change of components X, Y, and X



(a) Annual change of F component



(b) Annual change of D component



(c) Annual change of I component

Figure 12: Annual change of components F, D, and I

17 Tables of Annual Means

17.1 All Days

Year	X	Y	Z	D	H	F	I
1953	14968	874	48234	3° 20.5'	14993	50511	72° 43.9'
1954	14973	897	48266	3° 25.7'	15000	50543	72° 44.2'
1955	14976	921	48303	3° 31.1'	15004	50580	72° 44.6'
1956	14969	940	48345	3° 35.6'	14998	50618	72° 45.8'
1957	14972	955	48374	3° 39.0'	15002	50647	72° 46.2'
1958	14976	968	48403	3° 41.9'	15007	50676	72° 46.4'
1959	14978	980	48436	3° 44.6'	15010	50708	72° 46.9'
1960	14982	994	48474	3° 47.7'	15015	50746	72° 47.4'
1961	15004	1001	48501	3° 49.0'	15037	50779	72° 46.5'
1962	15019	1011	48522	3° 51.1'	15053	50803	72° 45.9'
1963	15025	1020	48547	3° 53.0'	15060	50829	72° 45.9'
1964	15039	1025	48565	3° 53.9'	15074	50851	72° 45.4'
1965	15050	1028	48580	3° 54.5'	15085	50868	72° 45.0'
1966	15055	1030	48603	3° 54.8'	15090	50892	72° 45.1'
1967	15056	1029	48631	3° 54.6'	15091	50919	72° 45.6'
1968	15069	1024	48658	3° 53.3'	15104	50948	72° 45.3'
1969	15084	1015	48684	3° 51.0'	15118	50977	72° 44.9'
1970	15099	1007	48717	3° 48.9'	15133	51013	72° 44.6'
1971	15119	1002	48746	3° 47.5'	15152	51047	72° 44.0'
1972	15133	1003	48781	3° 47.5'	15166	51084	72° 43.8'
1973	15145	1007	48818	3° 48.2'	15178	51123	72° 43.7'
1974	15155	1015	48858	3° 49.9'	15189	51165	72° 43.8'
1975	15166	1023	48895	3° 51.5'	15200	51203	72° 43.8'
1976	15177	1038	48931	3° 54.8'	15212	51241	72° 43.8'
1977	15179	1057	48963	3° 59.0'	15216	51273	72° 44.2'
1978	15171	1079	49005	4° 04.1'	15209	51311	72° 45.5'
1979	15166	1099	49030	4° 08.7'	15206	51334	72° 46.2'
1980	15161	1116	49043	4° 12.6'	15202	51345	72° 46.7'
1981	15142	1143	49070	4° 19.0'	15185	51366	72° 48.3'
1982	15121	1160	49091	4° 23.2'	15165	51380	72° 50.0'
1983	15109	1180	49101	4° 27.9'	15155	51387	72° 50.8'
1984	15089	1198	49112	4° 32.4'	15136	51392	72° 52.2'
1985	15070	1215	49125	4° 36.6'	15119	51399	72° 53.6'
1986	15048	1233	49144	4° 41.1'	15098	51411	72° 55.3'
1987	15033	1248	49158	4° 44.7'	15085	51420	72° 56.4'
1988	15009	1265	49185	4° 49.1'	15062	51440	72° 58.4'
1989	14986	1280	49214	4° 52.9'	15041	51461	73° 00.4'
1990	14975	1291	49230	4° 55.6'	15031	51473	73° 01.3'
1991	14957	1306	49251	4° 59.4'	15014	51489	73° 02.8'
1992	14952	1321	49263	5° 02.9'	15010	51499	73° 03.3'
1993	14946	1343	49278	5° 08.1'	15006	51512	73° 03.8'
1994	14935	1369	49303	5° 14.2'	14998	51534	73° 04.8'
1995	14931	1395	49329	5° 20.3'	14996	51558	73° 05.4'
1996	14928	1423	49353	5° 26.7'	14996	51581	73° 05.9'
1997	14918	1454	49388	5° 34.0'	14989	51612	73° 07.1'
1998	14905	1485	49431	5° 41.4'	14979	51651	73° 08.5'
1999	14901	1514	49468	5° 48.1'	14978	51686	73° 09.3'
2000	14893	1542	49512	5° 54.7'	14973	51726	73° 10.5'
2001	14895	1571	49550	6° 01.2'	14978	51764	73° 10.9'
2002	14895	1601	49594	6° 08.1'	14981	51807	73° 11.5'
2003	14885	1636	49643	6° 16.3'	14975	51852	73° 12.9'
2004	14888	1663	49677	6° 22.4'	14981	51887	73° 13.1'

17.2 Quiet Days

Year	X	Y	Z	D	H	F	I
1953	14975	872	48235	3° 20.0'	15000	50514	72° 43.5'
1954	14977	895	48266	3° 25.2'	15004	50544	72° 43.9'
1955	14980	919	48302	3° 30.6'	15008	50580	72° 44.4'
1956	14978	936	48343	3° 34.6'	15007	50619	72° 45.2'
1957	14978	951	48372	3° 38.0'	15008	50647	72° 45.8'
1958	14984	965	48400	3° 41.1'	15015	50676	72° 45.9'
1959	14986	976	48433	3° 43.6'	15018	50708	72° 46.4'
1960	14993	989	48474	3° 46.4'	15026	50749	72° 46.7'
1962	15022	1009	48523	3° 50.6'	15056	50805	72° 45.7'
1963	15032	1018	48547	3° 52.5'	15066	50831	72° 45.5'
1964	15042	1024	48566	3° 53.7'	15077	50852	72° 45.2'
1965	15051	1027	48581	3° 54.2'	15086	50869	72° 44.9'
1966	15059	1028	48602	3° 54.3'	15094	50892	72° 44.8'
1967	15062	1028	48630	3° 54.3'	15097	50920	72° 45.2'
1968	15073	1022	48657	3° 52.7'	15108	50948	72° 45.1'
1969	15089	1013	48684	3° 50.4'	15123	50979	72° 44.6'
1970	15104	1005	48715	3° 48.4'	15137	51013	72° 44.3'
1971	15124	1001	48746	3° 47.2'	15157	51048	72° 43.6'
1972	15139	1001	48780	3° 47.0'	15172	51085	72° 43.4'
1973	15151	1004	48819	3° 47.5'	15184	51126	72° 43.4'
1974	15162	1012	48859	3° 49.1'	15196	51167	72° 43.4'
1975	15171	1020	48896	3° 50.8'	15205	51206	72° 43.5'
1976	15182	1035	48930	3° 54.0'	15217	51242	72° 43.5'
1977	15184	1054	48963	3° 58.2'	15221	51274	72° 43.9'
1978	15178	1075	49003	4° 03.1'	15216	51311	72° 45.0'
1979	15171	1096	49028	4° 07.9'	15211	51333	72° 45.8'
1980	15163	1115	49042	4° 12.3'	15204	51345	72° 46.5'
1981	15148	1140	49067	4° 18.2'	15191	51365	72° 47.9'
1982	15128	1157	49090	4° 22.4'	15172	51381	72° 49.5'
1983	15115	1176	49101	4° 26.9'	15161	51388	72° 50.5'
1984	15095	1195	49113	4° 31.6'	15142	51394	72° 51.9'
1985	15076	1212	49125	4° 35.8'	15125	51401	72° 53.2'
1986	15055	1230	49144	4° 40.2'	15105	51413	72° 54.9'
1987	15037	1246	49158	4° 44.2'	15089	51422	72° 56.2'
1988	15014	1262	49182	4° 48.3'	15067	51438	72° 58.1'
1989	14995	1276	49213	4° 51.8'	15049	51463	72° 59.8'
1990	14982	1288	49227	4° 54.8'	15037	51472	73° 00.8'
1991	14965	1302	49248	4° 58.3'	15022	51488	73° 02.2'
1992	14959	1318	49261	5° 02.1'	15017	51499	73° 02.8'
1993	14952	1341	49277	5° 07.5'	15012	51513	73° 03.4'
1994	14944	1365	49304	5° 13.1'	15006	51537	73° 04.3'
1995	14937	1392	49328	5° 19.4'	15002	51559	73° 05.1'
1996	14934	1421	49353	5° 26.1'	15001	51583	73° 05.6'
1997	14923	1452	49388	5° 33.4'	14993	51614	73° 06.7'
1998	14910	1484	49431	5° 41.0'	14984	51652	73° 08.2'
1999	14905	1512	49467	5° 47.5'	14981	51686	73° 09.0'
2000	14900	1540	49510	5° 54.1'	14979	51726	73° 10.0'
2001	14901	1569	49548	6° 00.6'	14983	51764	73° 10.5'
2002	14901	1599	49593	6° 07.5'	14987	51808	73° 11.1'
2003	14896	1632	49644	6° 15.1'	14985	51856	73° 12.2'
2004	14894	1660	49677	6° 21.6'	14986	51888	73° 12.8'

17.3 Disturbed Days

Year	X	Y	Z	D	H	F	I
1953	14959	879	48230	3° 21.8'	14985	50504	72° 44.4'
1954	14968	899	48264	3° 26.2'	14995	50540	72° 44.4'
1955	14967	924	48301	3° 32.0'	14995	50575	72° 45.2'
1956	14952	945	48344	3° 37.0'	14982	50612	72° 46.9'
1957	14959	961	48376	3° 40.5'	14990	50645	72° 47.0'
1958	14958	974	48407	3° 43.5'	14990	50675	72° 47.7'
1959	14963	986	48439	3° 46.2'	14995	50707	72° 47.9'
1960	14960	1004	48468	3° 50.4'	14994	50734	72° 48.6'
1961	14992	1005	48498	3° 50.1'	15026	50772	72° 47.2'
1962	15013	1013	48522	3° 51.6'	15047	50802	72° 46.3'
1963	15014	1025	48543	3° 54.3'	15049	50822	72° 46.6'
1964	15035	1027	48564	3° 54.5'	15070	50848	72° 45.6'
1965	15044	1030	48580	3° 55.0'	15079	50866	72° 45.3'
1966	15046	1033	48602	3° 55.7'	15081	50888	72° 45.6'
1967	15042	1034	48630	3° 55.9'	15077	50914	72° 46.5'
1968	15061	1028	48659	3° 54.3'	15096	50947	72° 45.8'
1969	15074	1019	48684	3° 52.0'	15108	50974	72° 45.5'
1970	15089	1011	48721	3° 50.0'	15123	51014	72° 45.4'
1971	15111	1006	48746	3° 48.5'	15144	51044	72° 44.5'
1972	15122	1007	48780	3° 48.6'	15155	51080	72° 44.4'
1973	15133	1013	48816	3° 49.8'	15167	51118	72° 44.4'
1974	15147	1019	48857	3° 50.9'	15181	51161	72° 44.3'
1975	15157	1027	48892	3° 52.6'	15192	51198	72° 44.3'
1976	15166	1042	48931	3° 55.8'	15202	51238	72° 44.5'
1977	15169	1061	48962	4° 00.1'	15206	51269	72° 44.8'
1978	15158	1086	49006	4° 05.9'	15197	51308	72° 46.3'
1979	15158	1103	49031	4° 09.7'	15198	51332	72° 46.7'
1980	15153	1120	49046	4° 13.6'	15194	51346	72° 47.2'
1981	15133	1146	49073	4° 19.8'	15176	51366	72° 48.9'
1982	15106	1166	49089	4° 24.8'	15151	51374	72° 50.9'
1983	15099	1184	49099	4° 29.0'	15145	51382	72° 51.4'
1984	15078	1203	49108	4° 33.7'	15126	51385	72° 52.8'
1985	15061	1219	49124	4° 37.6'	15110	51395	72° 54.1'
1986	15037	1237	49141	4° 42.2'	15088	51405	72° 55.9'
1987	15027	1250	49161	4° 45.3'	15079	51422	72° 56.9'
1988	15001	1268	49186	4° 49.9'	15054	51438	72° 58.9'
1989	14968	1287	49212	4° 54.9'	15023	51454	73° 01.4'
1990	14964	1296	49232	4° 57.0'	15020	51472	73° 02.0'
1991	14942	1313	49257	5° 01.3'	15000	51490	73° 03.8'
1992	14943	1324	49264	5° 03.8'	15002	51497	73° 03.8'
1993	14937	1348	49277	5° 09.4'	14998	51509	73° 04.3'
1994	14924	1373	49300	5° 15.4'	14987	51528	73° 05.5'
1995	14924	1398	49328	5° 21.1'	14989	51555	73° 05.9'
1996	14923	1425	49350	5° 27.3'	14991	51577	73° 06.2'
1997	14909	1457	49388	5° 34.9'	14980	51610	73° 07.6'
1998	14893	1489	49431	5° 42.6'	14967	51647	73° 09.3'
1999	14891	1517	49468	5° 49.0'	14968	51683	73° 09.9'
2000	14878	1547	49514	5° 56.2'	14958	51724	73° 11.4'
2001	14880	1576	49554	6° 02.8'	14963	51764	73° 11.9'
2002	14886	1604	49594	6° 09.0'	14972	51805	73° 12.1'
2003	14866	1643	49641	6° 18.4'	14957	51845	73° 14.0'
2004	14875	1669	49675	6° 24.1'	14968	51881	73° 13.9'

18 Earth's Magnetic Field Maps of Finland 2005.0

The isolines of total field (F) and horizontal field (H) are given in nanoteslas (nT), declination (D, positive eastwards) and inclination (I, positive downwards) in degrees of arc (see also www.geo.fmi.fi/MAGN/magncharts.html)

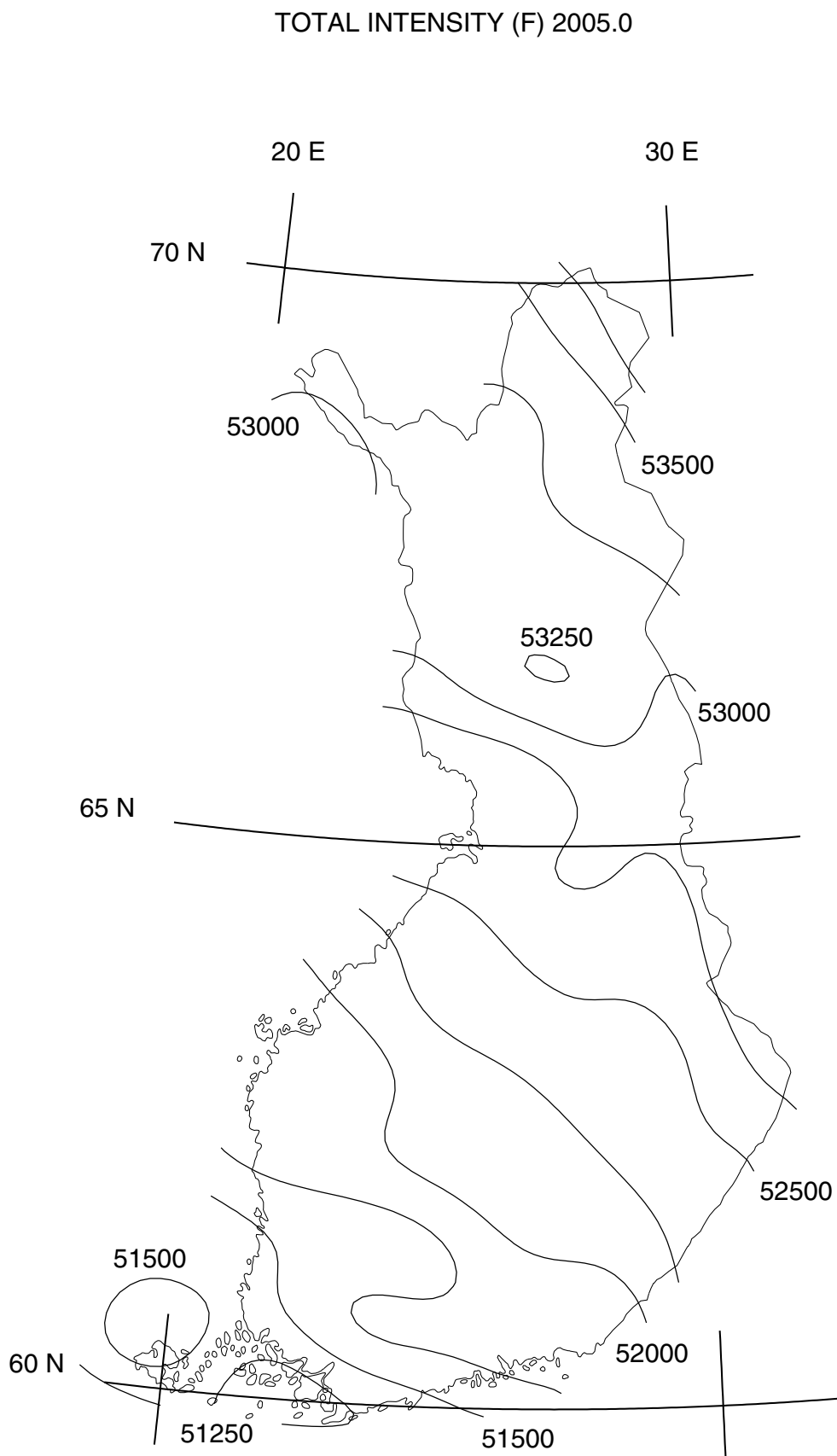


Figure 13: Total intensity F 2005.0 in nT

HORIZONTAL INTENSITY (H) 2005.0

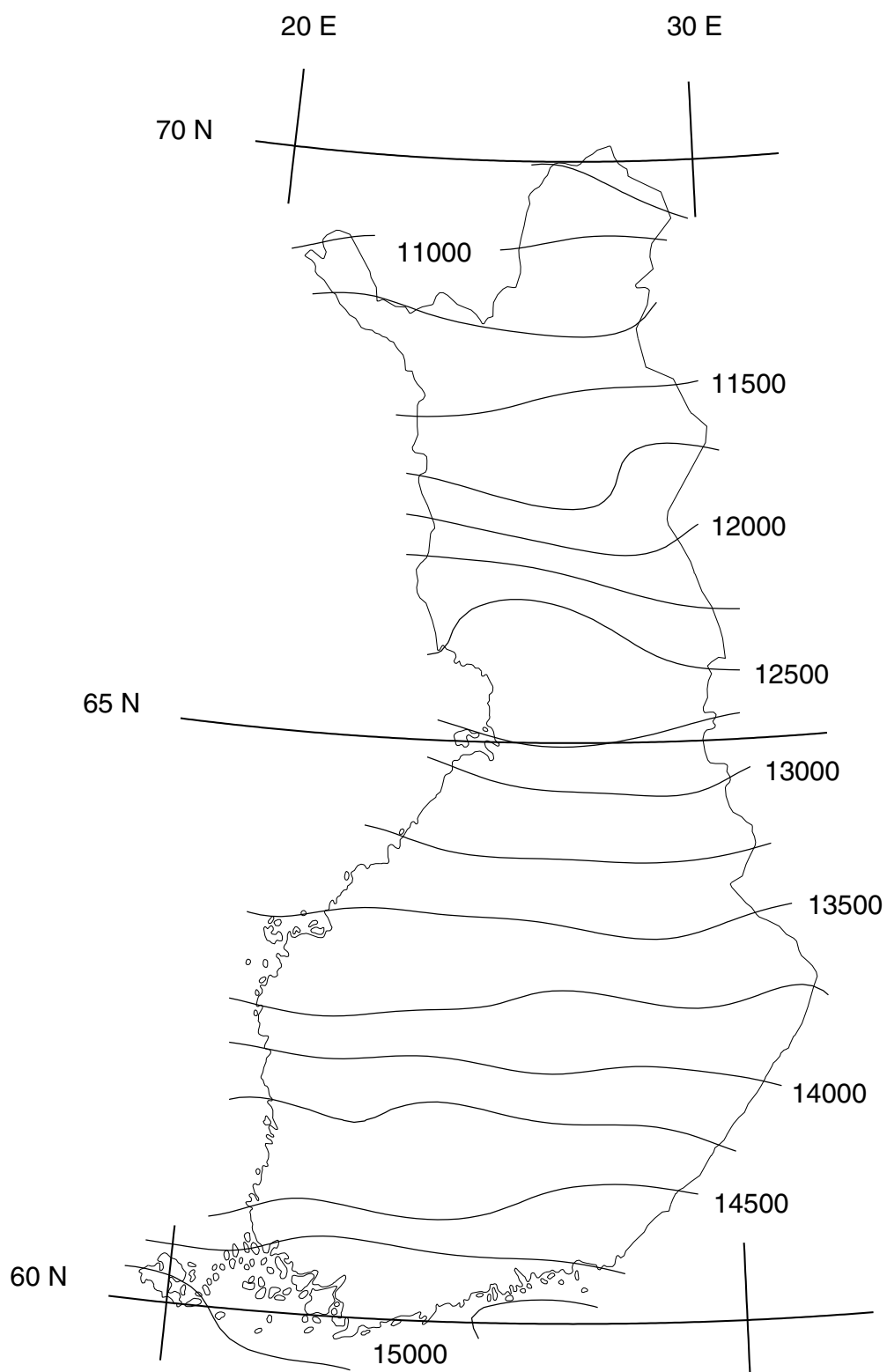


Figure 14: Horizontal intensity H 2005.0 in nT

DECLINATION (D) 2005.0

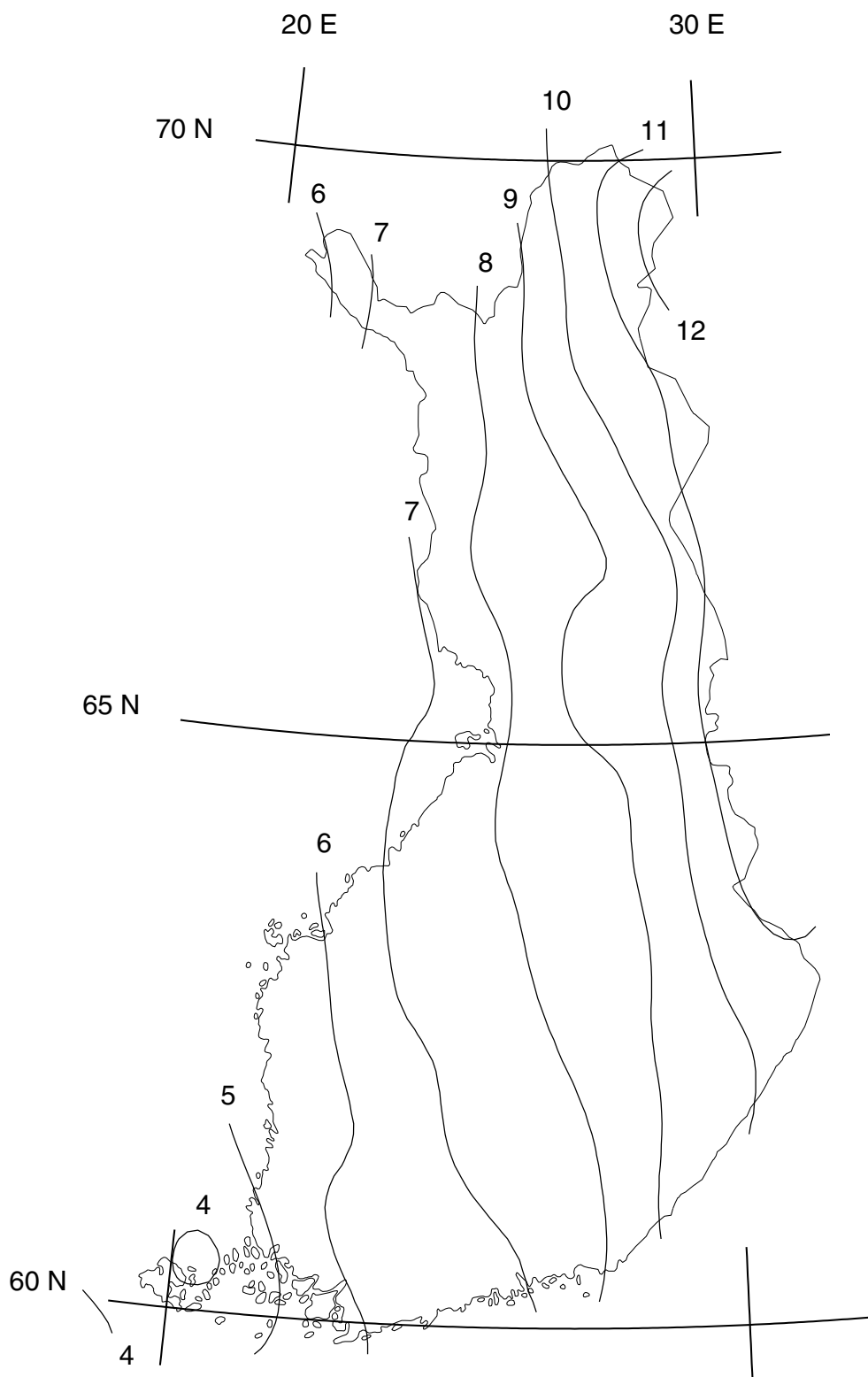


Figure 15: Declination D 2005.0 in degrees

INCLINATION (I) 2005.0

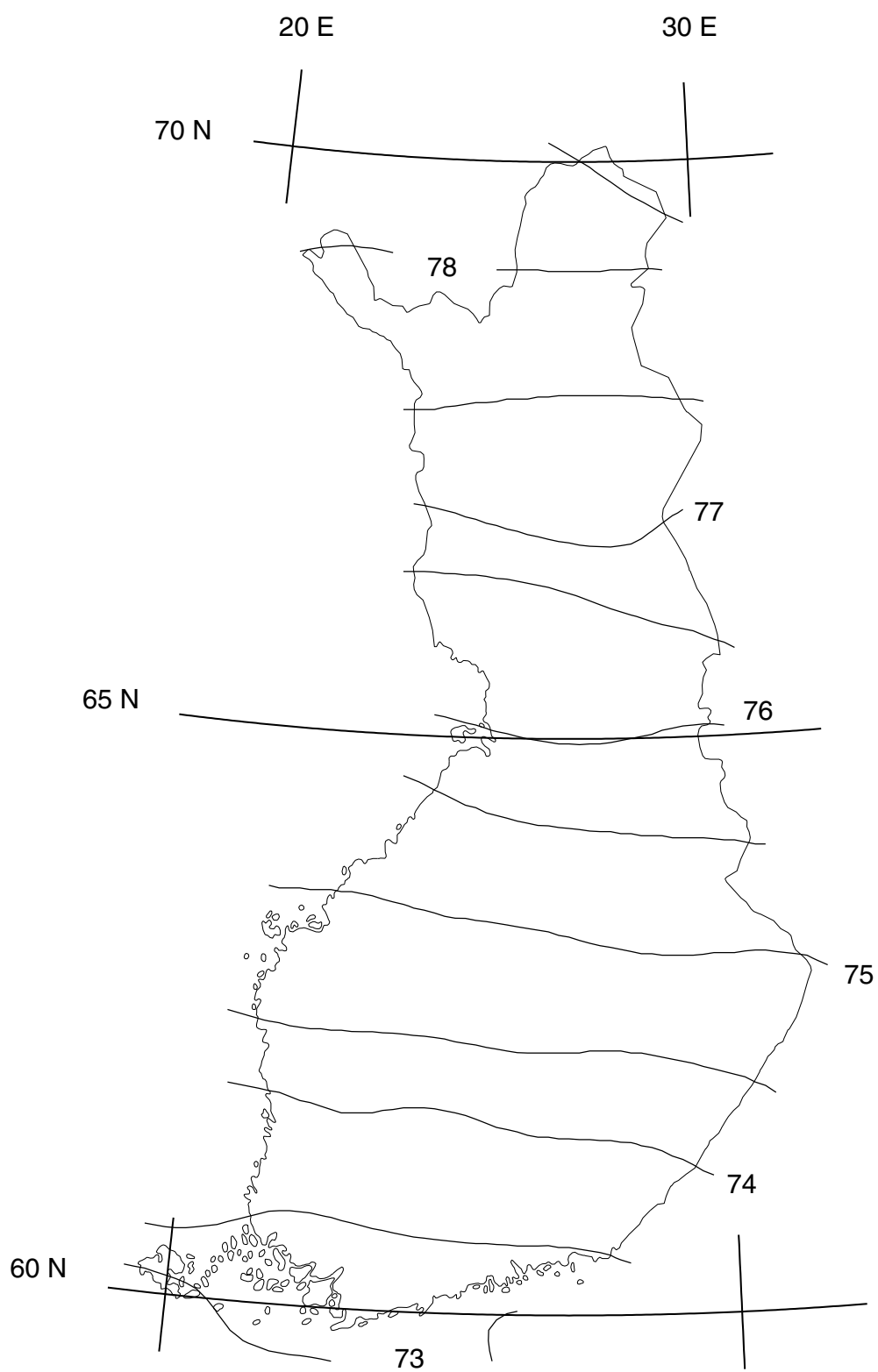


Figure 16: Inclination I 2005.0 in degrees

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